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CONSOLIDATED TRANSLATION SURVEY

Number 84

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CONSOLIDATED TRANSLATION SURVEY

FOR DECEMBER 1964

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CONSOLIDATED TRANSLATION SURVEY

PREFACE

This survey is prepared monthly by the Foreign Documents Division, Office of Central Reference, CIA, from lists received through the cooperation of US government agencies and includes translations prepared by such agencies, private industry, universities, research institutions, and commercial translation organizations. It is a compilation of foreign documentary projects completed or started during the preceding month.

Translations are listed by area and subject category. Scientific projects are grouped as a section regardless of geographic area. Title in English, author, foreign language title of source of material, date of publication, and publication identification of the completed project are given when available. Tables of contents of journals translated cover-to-cover are reproduced from the current publications.

Projects in process, i.e., not completed as of the date of this survey, are noted with an asterisk (*), and, when available, a project-control or "in-process" number is noted in parentheses following the title. Certain details may be unavailable on such projects. New projects in process are not listed again until they are completed.

An index to authors of items in this issue is provided at the end of the survey.

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Department of Army
Assistant Chief of Staff, Intelligence
Intelligence Documents Branch
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Requests from non-Government sources for Army documents should be ordered through

Department of Commerce
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Washington, D.C. 20230

AEC - Atomic Energy Commission (see Department of Commerce)

AERE Harwell Lib

The Librarian
AERE, Ministry of Supply
Harwell, Didcot, Berks
England

AF

Department of Air Force
Collection and Dissemination
Assistant Chief of Staff, Intelligence
ATTN: AFCIN 1B3
Washington 25, D.C.

AI - Atomics International (see AEC)

AIBS

American Institute of Biological Sciences
2000 P Street, NW
Washington, D.C. 20006

AIP

American Institute of Physics
335 East 45th Street
New York 17, New York

Amer Math Soc

American Mathematical Society
190 Hope Street
Providence 6, Rhode Island

ANL - Argonne National Laboratory, Illinois
(see AEC)

Army Map Service - (see ACSI)

ANRE - (see AEC)

BISI

British Iron and Steel Institute
4 Grosvenor Gardens
London, S.W. 1, England

CB

Consultants Bureau, Incorporated
227 West 17th Street
New York 11, New York

CTT

Columbia Technical Translations
5 Vermont Avenue
White Plains, New York 10600

DDC RSIC - Defense Documentation Center, Redstone
Scientific Information Center
(see Dept of Com)

Dept of Comm

U.S. Department of Commerce
Office of Technical Services
Washington, D.C. 20230

FSTC

U.S. Army Foreign Science and Technology Center
Arlington Hall Station
Washington 25, D.C.

FTD - Foreign Technology Division (see AF)

HW

General Electric Company
Handord Atomic Products Operation
Richland, Washington
(see AEC)

ISA

Instrument Society of America
530 William Penn Place
Pittsburgh, Pennsylvania 15219

JPRS

U.S. Department of Commerce
Office of Technical Services
Joint Publications Research Service
Building Tempo E,
East Adams Drive, 4th & 6th Streets, SW
Washington, D.C. 20443

Maritime Admin

Maritime Administration
Office Services
GAO, 5th and G Street, NW
Washington, D.C.

NASA

National Aeronautics and Space Administration
1512 H Street, NW
Washington, D.C. 20546

Natl Bu Stand

National Bureau of Standards
ATTN: Dr Henry Birnbaum
Room 314, South Building
Washington, D.C.

Navy

Department of Navy
Office of Naval Intelligence
Washington 25, D.C.

ONI - Office of Naval Intelligence (see Navy)

OSA

Optical Society of America, Incorporated
33 University Road
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Department of Agriculture
Foreign Agricultural Service
Room 5086
14th and Independence Avenue, NW
Washington 25, D.C.

319th MI Bn - 319th Military Intelligence Battalion
(see ACSI)

519th MI Bn - 519th Military Intelligence Battalion
(see ACSI)

525th MI Gp - 525th Military Intelligence Group
(see ACSI)

TRANSLATIONS REPORTED

FOR DECEMBER 1964

USSR

Economic

Western Siberia (Study on the Nature and Economy), RUSSIAN, bk, Zapadnaya Sibir'-Ocherk Prirody i Khozvaystva, Moscow, 1961.

ACIC
TC-759

Basic Problems in the Development of the City of Khabarovsk, by N. Solofrenko, 10 pp.
RUSSIAN, per, Arkhitektura SSSR, No 6, 1961, pp 46, 47.
ACSI I-3143
ID 2240854

Efficient Operation of Passenger Motor Transport, by S. Artem'yev, 7 pp.
RUSSIAN, per, Avtomobil' Transport, No 7, 1964, pp 1-3.
JPRS 26620

Motor Transport Organization in Leningrad, by A. Ivanov, 5 pp.
RUSSIAN, per, Avtomobil' Transport, No 7, 1964, pp 4, 5 pp.
JPRS 26620

Crediting of Commercial Organizations According to a New System, by G. Marveysv, S. Meshiborskaya, 10 pp.
RUSSIAN, per, Den'gi i Kredit, No 5, 1964, pp 12-17.
JPRS 27001

New System of Labor Awards to Workers, by I. Karpenko, V. Selyunin, 16 pp.
RUSSIAN, np, Ekon Gazeta, No 29 (154), 18 Jul 1964, pp 7, 8.
JPRS 26666

Lagging Production of Fertilizer Containers, by P. Kazakov, 7 pp.
RUSSIAN, np, Ekon Gazeta, No 30, 25 Jul 1964, p 3.
JPRS 26615

Activities of Soviet Merchant Marine, by V. Azar, M. Panova, 5 pp.
RUSSIAN, np, Ekon Gazeta, No 30, 25 Jul 1964, p 19.
JPRS 26620

Railroad Workers' Successes Detailed, 5 pp.
RUSSIAN, np, Ekon Gazeta, No 31, 1 Aug 1964, p 3.
JPRS 26620

Work of Passenger Navigation Line Reviewed, by V. Azar, 5 pp.
RUSSIAN, np, Ekon Gazeta, No 31 (156), 1 Aug 1964, p 14.
JPRS 26620

Improvement in Electrical Circuit of Electric Locomotive, by V. L. Medikov, A. L. Polyakov, 6 pp.
RUSSIAN, per, Elektri i Teplovoz Tyaga, No 6, 1964, pp 21-23.
JPRS 26644

Moscow Locomotive Repair Plant Reports New Achievements, by A. Khrisanov, 5 pp.
RUSSIAN, np, Gudok, 22 Jul 1964, p 3.
JPRS 26698

USSR
Economic (Contd)

Electrification of Transportation Reviewed, by I. Ivanov, I. Isayev, et al, 5 pp.
RUSSIAN, per, Gudok, 31 Jul 1964, p 3.
JPRS 26620

New Labor Agreements in Ship Repair, 6 pp.
RUSSIAN, per, Gosudar Komitet Sovets Ministrov SSSR po Voprosam Truda i Zarabotnoy Platby, Byul, No 6, 1964, pp 3-6.
JPRS 26698

Economics Is Main Battlefield for Communism, 28 pp.
RUSSIAN, per, Kommunist, No 12, Aug 1964, pp 12-33.
JPRS 26614

Economic Relations and Individual Interests Under Socialism, by G. Glezerman, 14 pp.
RUSSIAN, per, Kommunist, No 12, Aug 1964, pp 44-54.
JPRS 26614

A Mandatory Condition for Building a New Society, 8 pp.
RUSSIAN, per, Kommunist Belorusi, Vol VII, No 8, 1963, pp 29-33.
JPRS 27021

Main Trend of Development of Chemical Industry in Uzbekistan, by A. Dul'man, 10 pp.
RUSSIAN, per, Kommunist Uzbek, No 6, 1964, pp 63-69.
JPRS 26975

Toward New Successes in Production, by A. G. Natradze, 7 pp.
RUSSIAN, per, Medit Prom SSSR, Vol XVIII, No 5, 1964, pp 3-7.
JPRS 26580

Basic Trends in Overall Mechanization in Metallurgical Machine Building, by M. G. Umyagin, 14 pp.
RUSSIAN, per, Mekh i Avtomat Proiz, No 3, 1964, pp 5-11.
JPRS 26973

Higher Level of Economic and Commercial Work Needed in Maritime Fleet, 7 pp.
RUSSIAN, per, Morskoy Flot, No 6, 1964, pp 1, 2.
JPRS 26698

Energetic Methods of Escorting Ships in the Arctic Needed, by A. Afanas'yev, 7 pp.
RUSSIAN, per, Morskoy Flot, No 7, 1964, pp 24, 25.
JPRS 26698

Influence of the Type of Polymeric Film and Method of Packaging on Meat Products, by N. Shishkina, L. Zbarskaya, et al, 8 pp.
RUSSIAN, per, Myasnaya Industriya, No 1, 1964, pp 10-13. 969512
PSTC 381-T64-6

Construction Is Gathering Speed, by E. Antipin, V. Vlasovskiy, 6 pp.
RUSSIAN, per, Na Stroykakh Rossii, No 7, 1964, pp 18, 19.
JPRS 26665

Researchers in Large-Scale Chemical Industry, by V. Aref'yev, D. I. Mendeleyev, 8 pp.
RUSSIAN, per, Nauch Tekh Obschch, No 6, 1964, pp 23-25.
JPRS 26615

USSR
Economic (Contd)

Economic Effectiveness of External Trade,
by G. Smirnov, B. Zorov, et al, 14 pp.
RUSSIAN, per, Pian Khoz, No 8, 1964, pp 25-32.
JPRS 20992

Shortcomings in the Oil-Chemical Industry Discussed,
by Z. Nuriyev, 5 pp.
RUSSIAN, np, Pravda, Moscow, 28 Jul 1964, p 2.
JPRS 26600

The Economy of Electric Power in Industry in 1963,
10 pp.
RUSSIAN, per, Prom Energet, No 7, 1964, pp 2-6.
JPRS 26963

Economics of Direct Shipments by Ships Intended for
Mixed Navigation, by A. Kovalev, 8 pp.
RUSSIAN, per, Technoy Transport, No 6, 1964,
pp 10, 11.
JPRS 26698

Index of the Normative Cost of Processing in the Light
of Practical Experience, by Ye. Sheyn, 13 pp.
RUSSIAN, per, Sotsialisticheskiy Trud, No 5, 1964,
pp 108-115.
JPRS 27001

Labor Passports Discussed, by A. Myasnikov, 8 pp.
RUSSIAN, per, Sotsial Trud, No 6, 1964, pp 3-6.
JPRS 26666

Progressive Norms for the Chemical and Oil Refining
Industry, by N. Chernyshov, Ye. Batastova, 11 pp.
RUSSIAN, per, Sotsial Trud, No 6, 1964, pp 66-74.
JPRS 26666

Increasing Labor Productivity, by P. Kletsov, 11 pp.
RUSSIAN, per, Sotsial Trud, No 6, 1964, pp 126-131.
JPRS 26666

Labor and Rest in Civil Aviation, by I. Snigireva, 6 pp.
RUSSIAN, per, Sovet Profsoyuz, No 13, Jul 1964,
pp 42-44.
JPRS 26698

Equipment for the Mechanization of Loading-Unloading
Work, by Ye. Levin, 7 pp.
RUSSIAN, per, Sovet Torgoviya, No 9, 1963,
pp 37-40. 969469
FSTC 381-T64-4

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by G. Gofman, 10 pp.
RUSSIAN, per, Sovet Torgov, No 7, 1964,
pp 14-19.
JPRS 26643

Specialization and Cooperation Experience Discussed,
by V. Leyn, 6 pp.
RUSSIAN, np, Sroitel Gazeta, No 65, 31 May 1964, p 2.
JPRS 26672

Greater Control Over Construction Projects,
by G. Bykov, 5 pp.
RUSSIAN, np, Sroitel Gazeta, No 73, 19 Jun 1964, p 1.
JPRS 26667

Specialization of Prefabricated Reinforced Concrete,
by S. Shagurin, 6 pp.
RUSSIAN, np, Sroitel Gazeta, No 77, 28 Jun 1964, p 2.
JPRS 26672

On the Determination of Planned Prices for Planning
and Accounting of Gross Production, by
S. S. Vinogradov, S. I. Shrayber, 6 pp.
RUSSIAN, per, Sudostroyeniye, No 6, 1964, pp 47-49.
JPRS 26698

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Economic (Contd)

Light Industry and its Development on the Basis of
Chemistry, by N. N. Tarasov, 17 pp.
RUSSIAN, per, Tekstil' Prom, No 5, 1964, pp 1-10.
JPRS 26661

The Soviet Union Ascribes to New International
Rules for Documentary Credit Letters,
by A. Altshuler, L. Volkov, 13 pp.
RUSSIAN, per, Vnesh Torgov, No 6, 1964, pp 47-51.
JPRS 26576

Skilled Labor--One of the Factors in Wage
Differentiation, by Ya. Comberg, 13 pp.
RUSSIAN, per, Voprosy Ekon, No 7, 1964, pp 21-30.
JPRS 26625

Prospects for the Development of the Medical Industry
in the Ukrainian SSR, by I. M. Tanchenko, 7 pp.
UKRAINIAN, per, Medit Prom SSSR, No 8, 1964,
pp 3-7.
JPRS 27023

Political

Party Educational Work in Pruzhenskiy Rayon (Moscow),
by L. Perfilova, 6 pp.
RUSSIAN, np, Bakinatskiy Rabochiy, 30 Jul 1964, p 2.
JPRS 26593

Chinafield Marxism, Nationalism in Pseudo-Marxism
Wraps, by A. Rumyantsev, 13 pp.
RUSSIAN, per, Kommunist, No 12, Aug 1964,
pp 34-43.
JPRS 26614

Aspects of the Soviet Way of Life,
by L. Karpinskii, 14 pp.
RUSSIAN, per, Kommunist, No 12, Aug 1964,
pp 55-64.
JPRS 26614

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RUSSIAN, per, Kommunist, No 12, Aug 1964,
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JPRS 26592

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The Leninist Policy of Peaceful Coexistence and the
Class Struggle, 25 pp.
RUSSIAN, per, Kommunist, No 13, Sep 1964, pp 46-65.
JPRS 26592

Protect the World From a New Imperialist Crime,
by V. Khvostov, 10 pp.
RUSSIAN, per, Kommunist, No 13, Sep 1964, pp 66-73.
JPRS 26592

USSR
Political (Contd)

New Tasks -- A New Style of Leadership, 9 pp.
RUSSIAN, por, Kommunist, No 13, Sep 1964, pp 74-81.
JPRS 26952

Literaturnaya Gazeta Attacks Barracks-Like
Literature Espoused by Red Chinese, by B. Ryurikov,
12 pp.
RUSSIAN, np, Literaturnaya Gazeta, 12 Sep 1964,
pp 1, 4.
JPRS 26951

Force of Active Technical Propaganda,
by G. Anzimirov, I. Vinnik, 5 pp.
RUSSIAN, por, Nauch Tekh Obshch, No 6,
1964, pp 26-28.
JPRS 26613

The Slogans of the Leninist Party, 5 pp.
RUSSIAN, np, Pravda, 19 Oct 1964, p 1.
JPRS 27029

Background on the Flight of Valentina Tereshkova,
by A. Romanov, 5 pp.
RUSSIAN, np, Pravda Ukrayiny, 18 Jun 1963, p 2.
JPRS 26847

Darkhan - Fairhaired Child of Friendship of the
Peoples' Socialist Countries, by M. Cherkassov, 8 pp.
RUSSIAN, por, Sovremennaya Mongoliya, 1964,
pp 12-15. (Call No DS935 S72, 1964, Eng Tr)
Army Map Service

About Criticism of Bourgeois Philosophy,
by Wolfgang Eichorn, 17 pp.
RUSSIAN, por, Voprosy Filosofii, No 4, 1962, pp 154-165.
JPRS 26665

Military

Artillery Gunnery Notebook for the Field Artillery
Officer, by B. A. Ignatyev, 113 pp.
RUSSIAN, bk, Artilleriysko-Sirelkovyy Bloknot
Offizera Nazemny Artillerii, 1960.
ACSI I-4808
ID 2204051564

Demolition Tactics and Techniques for the Soldier,
by B. V. Varenashev, 86 pp.
RUSSIAN, bk, Soldatu o Podvyyom Dale, Moscow,
1956, 110 pp.
ACSI I-381
ID 2204050264

Soviet Anti-Aircraft Gunners, by Ya. Kekalo, 114 pp.
RUSSIAN, rpt, Sovetskije Zenitchiki, 1959, 160 pp.
ACSI I-5636
ID 2204042064

Military Significance of Weather Control,
by M. V. Belyakov, 23 pp.
RUSSIAN, bk, Vozduashny Okean, Moscow, 1963,
pp 106-130.
JPRS 26861

Mutual Aid for the Population During Use of
Chemical Weapons, by A. S. Ushikina.
RUSSIAN, bk, Vzaimopomoshchny Naseleniya pri
Primenenii Khimicheskogo Oruzhija,
Navy/ONI 1027

USSR
Military (Contd)

Protecting the Rural Population Against Radioactive
Contamination, by A. P. Durikov, V. I. Chumakov,
58 pp.
RUSSIAN, pamphlet, Zashchita Naseleniya Sel'skoy
Mestnosti ot Radioaktivnogo Zarazheniya, Moscow,
1963, 79 pp.
JPRS 27030

Revolution in Military Affairs, Its Importance and
Consequences, Military Art on a New Stage, by
V. Sokolovskiy, M. Cherednichenko, 10 pp.
RUSSIAN, np, Krasnaya Zvezda, No 200, Aug 25, 1964,
pp 2-3. 9695253
FTD-TT-64-905

Atomic Weapon and Anti-Atomic Protection of
Military Units. Tracing of Radioactive Cloud, by
G. Pozhidaev, 6 pp.
RUSSIAN, np, Krasnaya Zvezda, No 207, Sept 2,
1964, p 2. 9695414
FTD-TT-64-1020

Degrees of Talent, by M. Lebedinsky, 6 pp.
RUSSIAN, por, Kryltya Rodiny, No 12, 1963,
pp 14-15. 9695068
FTD-TT-64-342

Individual Protection, by G. Krylov, 6 pp.
RUSSIAN, por, Starshina-Serzhant, No 3, 1964,
pp 10-11. 9695250
FTD-TT-64-901

Collective Protection, by P. Ivanov, 6 pp.
RUSSIAN, por, Starshina-Serzhant, No 4, 1964,
pp 32-33. 9695250
FTD-TT-64-901

Reconnaissance, by A. Poklonov, 6 pp.
RUSSIAN, por, Starshina-Serzhant, No 5, 1964,
pp 30-31. 9695250
FTD-TT-64-901

Special Treatment, by I. Kantyrev, 6 pp.
RUSSIAN, por, Starshina-Serzhant, No 6, 1964,
pp 28-29. 9695250
FTD-TT-64-901

Fifth All-Russian Congress, 5 pp.
RUSSIAN, por, Voyennyye Znaniya, No 7, 1964,
pp 4, 5.
JPRS 26659

Tactical Drill Exercises, by V. Timofeyev, 7 pp.
RUSSIAN, por, Voyennyye Znaniya, No 7, 1964,
pp 20, 21.
JPRS 26659

Operations in the Nuclear Center of Destruction,
by S. Chukov, V. Zakharov, 7 pp.
RUSSIAN, por, Voyennyye Znaniya, No 7, 1964,
pp 23-25.
JPRS 26659

Dosimetric Instruments, by A. Teplov, 5 pp.
RUSSIAN, por, Voyennyye Znaniya, No 7, 1964,
pp 28, 29.
JPRS 26659

USSR
Geographic

Frunze is Capital of the Kirghiz SSR, by S. N. Ryazantsev, 26 pp.
RUSSIAN, rpt, Frunze - Stolitsa Kirgizskoy SSR, 1950, pp 16-41. (Call No DK631 F945 R9, Eng Tr)
Army Map Service

North-Western China, by E. M. Murzayev. (SF-3463)
RUSSIAN, bk, Severo-Vostochnyy Kitay, Moscow, 1955, pp 3-227.
*JPRS

Problems in the Geography of the Kazakh SSR, 11 pp.
RUSSIAN, bk, Voprosy Geografii Kazakhstana, No 10, 1963.
ACSI I-4866
ID 2204024964

Southern Kazakhstan Oblast, by M. I. Semenova, 12 pp.
RUSSIAN, bk, Yuzhno-Kazakhstanskaya Oblast', 1956.
ACSI I-4867
ID 2204025064

Geographic Location and Natural Conditions, by S. K. Bystrov, A. M. Moskulin, 17 pp.
RUSSIAN, per, Alayevsk, 1961, pp 7-19. (Call No DK651 A316 B9, Eng Tr)
Army Map Service

New Cities of the Soviet Union, by B. S. Khorcov, 10 pp.
RUSSIAN, per, Geografiya, pp 5-7; 10. (Call No G1 G513, Eng Tr)
Army Map Service

USSR
Sociological (Contd)

Elizabeth Gurley Flynn Reviews History of American Communist Party, by Elizabeth Gurley Flynn, 5 pp.
RUSSIAN, np, Pravda, 1 Sep 1964, p 3.
JPRS 26771

Russian Communist Condemns Peiping Land Claim, by F. N. Petrov, 5 pp.
RUSSIAN, np, Pravda, 5 Sep 1964, p 3.
JPRS 26771

Beacons of the Physical Culture Movement, by D. S. Kryukov, 6 pp.
RUSSIAN, per, Tsopriya i Prakriya Fiz Kultury, No 6, 1964, pp 67-70.
JPRS 26953

Philosophical Problems of Socialist and Communist Construction, by Milow Kalab, 13 pp.
RUSSIAN, per, Voprosy Filosofii, No 4, 1962, pp 145-153.
JPRS 26865

Biographic

On the Occasion of the 80th Birthday of Academician Evgenii Nikanorovich Pavlovskii, by G. S. Pervomayskiy, A. F. Tumka.
RUSSIAN, per, Zhur Mikrobiol, Epidemiol i Immunobiol, Vol XLI, No 5, 1964, pp 14-19. 9225042
USDA ID V-1937

Sociological

Cybernetics and Religion, by Solomon Mikhaylovich Shalyutin, 71 pp.
RUSSIAN, bk, Kibernetika i Religiya, Moscow, 20 Jul 1964, pp 1-64.
JPRS 26889

Man's Beauty and Glory Is Reflected in His Work, 11 pp.
RUSSIAN, per, Kommunist, No 12, 1964, pp 3-11.
JPRS 26614

Urgent Tasks in the Legal Sciences, 7 pp.
RUSSIAN, per, Kommunist, No 12, Aug 1964, pp 70-74.
JPRS 26614

The Humanism of the Fighter and the Builder, by A. Metchenko, 12 pp.
RUSSIAN, per, Kommunist, No 12, Aug 1964, pp 75-83.
JPRS 26614

The Soviet Family, by S. Laptenok, 9 pp.
RUSSIAN, per, Kommunist Belorusii, Vol VII, No 8, 1963, pp 60-62.
JPRS 27021

Pravda Scores Red Chinese View of Hiroshima Conference, by Yuryi Zhukov, Viktor Mayevskiy, 7 pp.
RUSSIAN, np, Pravda, 30 Aug 1964, p 5.
JPRS 26771

EASTERN EUROPE

Economic

The Protection and Strengthening of Common Property Require the Attention and Interest of Every Worker, by Thoma Nini, 5 pp.
ALBANIAN, np, Bashkimi, 10 Sep 1964, pp 2, 3.
JPRS 26853

The Work of the Bulgarian Electric Power System During the Summer and Fall of 1964, by Z. Kamenov, P. Guyrov, 15 pp.
BULGARIAN, per, Elektroenergiya, No 6, 1964, pp 1-4.
JPRS 26708

Prospects for the Development of Atomic Electric Power Plants in Bulgaria, by Zh. Gudeva, A. Velkov, 20 pp.
BULGARIAN, per, Elektroenergiya, No 6, 1964, pp 5-9.
JPRS 26708

Reducing Accidents in the Electric Power System, by A. Nikolov, 6 pp.
BULGARIAN, per, Elektroenergiya, No 6, 1964, pp 25, 26.
JPRS 26708

Eastern Europe
Economic (Contd)

The Importance of Soviet Assistance to Bulgaria in the Development of Socialist Construction, by Aleksandar Dimitrov, 7 pp.
BULGARIAN, per, Planovo Stopansvo i Statistika, No 7, 1964, pp 32-38.
JPRS 26668

The Development of the Bulgarian Food Industry, 1944-1964, by Nikola Govedarski, 10 pp.
BULGARIAN, per, Planovo Stopansvo i Statistika, No 7, 1964, pp 74-82.
JPRS 26663

The Socialist Reconstruction and Advancement of Bulgarian Agriculture, by Stoyan Syulemezov, 14 pp.
BULGARIAN, per, Planovo Stopansvo i Statistika, No 7, 1964, pp 83-94.
JPRS 26663

The Use of Labor Resources in Bulgaria, by Angel Tsankov, 17 pp.
BULGARIAN, per, Trud i Tseni, No 7, 1964, pp 18-28.
JPRS 26669

Improvement in State Direction of Price Policy, by Ivan Videnov, 8 pp.
BULGARIAN, per, Trud i Tseni, No 7, 1964, pp 29-34.
JPRS 26669

Wages According to Work Results--the Main Principle in the Wage System in Bulgaria, by Yordan Bozhilov, 12 pp.
BULGARIAN, per, Trud i Tseni, No 7, 1964, pp 35-44.
JPRS 26669

Labor Law in Bulgaria, 1944-1964, by Lubomir Radulski, 21 pp.
BULGARIAN, per, Trud i Tseni, No 7, 1964, pp 59-76.
JPRS 26669

The Plant for the Production of Asynchronous Motors, in Plovdiv, by Ganka Zlatanova, 9 pp.
BULGARIAN, per, Trud i Tseni, No 7, 1964, pp 86-91.
JPRS 26852

A Look into the Development of the Chemical Industry in Yugoslavia, by R. Pasarich, 12 pp.
CROATIAN, per, Kemiya i Industrii, No 7, 1964, pp 355-359.
JPRS 26652

Czechoslovak Navigation, by Karel Raba, 10 pp.
CZECH, per, Doprava, No 12, 1961, pp 175-178.
ACSI I-5337
ID 2204031864

Labe River Waterway, by Vratislav Tekly, 8 pp.
CZECH, per, Doprava, No 12, 1961, pp 401-403.
ACSI I-5343
ID 2204032464

On the Long-Range Plan for the Development of Agriculture Through 1970, by Zdenek Skala, 6 pp.
CZECH, per, Ekonomika Zemelstvi, No 8, 1964, pp 229, 230.
JPRS 26649

Concentrating and Auxiliary Operations at the Orlik Hydraulic Project, by Jan Lazna, Zdenek Suchy, 10 pp.
CZECH, per, Inzonyrskie Stavby, No 6, 1959.
ACSI I-5344
ID 2204032564

Production of Battery Powered Electric Carts in the Bulgarian Peoples Republic, by Izak Jakov, 5 pp.
CZECH, per, S trojirenska Vyroba, Vol XII, No 3, 1964, pp 206-210.
ACSI I-5418
ID 2204034864

Eastern Europe
Economic (Contd)

Czechoslovak Analog Computer Technology, by Karel Kabeš.
CZECH, per, Technicka Praca, No 8, 1964, pp 565-569.
ACSI I-5817-A
ID 2204050664

EPOS Automatic Computer Systems, by V. Bubenik.
CZECH, per, Technicka Praca, No 8, 1964, pp 569-572.
ACSI I-5817-B
ID 2204050664

System of Waterways Projects on the Danube River, by Jiri Huran, 9 pp.
CZECH, per, Vodni Hospodarstvi, No 5, 1964, pp 162-165.
ACSI I-5650
ID 2204042964

Cybernetics and Economic Management, by Vladimir Kadlec, 10 pp.
CZECH, per, Zivot Strany, No 15, Aug 1964, pp 953-958.
JPRS 26773

Technological Problems and Cost Factors in the Slitting of Cold-Rolled Strip, by J. Kemp.
GERMAN, per, Blech, No 11, 1963, pp 793-801.
BISI 3917

The Planning Tasks of the Agricultural Bank, by Willi Kroel, 8 pp.
GERMAN, per, Deutsche Finanzwirtschaft, Vol XVIII, No 16, 1964, pp 61-64.
JPRS 26663

The Transition to Industrial Type Production Methods in Poultry Farming, by J. Engelhard, 10 pp.
GERMAN, per, Die Deutsche Landwirtschaft, Vol XV, No 8, 1964, pp 403-411.
JPRS 26663

In Favor of Close International Cooperation in Transportation, by K. H. Domdey, 6 pp.
GERMAN, np, Fahrt Presl, No 34, 25 Aug 1964, p 5.
JPRS 26682

Competition in the Maritime Industry, by A. Niedballa, 5 pp.
GERMAN, per, Schiffbautechnik, Vol XIV, No 5, Sep 1964, pp 449, 450.
JPRS 26970

The Model V 6012 Engine of the German Reichsbahn, by Carl Schwerin, 7 pp.
GERMAN, per, Die Werkstatt, No 8, 1964, pp 261-264.
JPRS 26970

Problems of Implementing the New Economic System for Planning and Administering the Peoples Economy in the Field of Foreign Trade, by Gerhard Grote, 7 pp.
GERMAN, per, Wirtschaftswissenschaft, No 8, 1964, pp 1233-1246.
JPRS 26851

East Germany's Industrial Price Reform, 8 pp.
GERMAN, per, Wochenbericht, 7 Aug 1964, pp 139-141.
JPRS 26537

Research in Packaging Engineering --- Today and Tomorrow, by R. Heiss, 6 pp.
HUNGARIAN, per, Csoniagolas Technika, Vol IX, No 1, 1964, pp 11-14.
ACSI I-5434
ID 2204036364

Eastern Europe
Economic (Contd)

The Development Problems of the Clothing Industry, by Pal Fusti, 13 pp. HUNGARIAN, per, Kozgazdasagi Szemle, No 9, 1964, pp 1119-1126. JPRS 26987

The Situation of Petroleum and Natural Gas Production in Békés Megye, by Adam Visontai, 13 pp. HUNGARIAN, per, Statisztilai Ertesito, No 9, 1964, pp 417-423. JPRS 26968

The Development of Private Passenger Automobile Sales and Problems Involved in Their Operation, by Larvan Szela, 13 pp. HUNGARIAN, per, Statisztilai Ertesito, No 9, 1964, pp 432-439. JPRS 26968

State Road Net work During 1945-1965, by Kazimierz Lewandowski, 13 pp. POLISH, per, Drogownictwo, Vol XIX, No 7, 8, 1964, pp 177-181. JPRS 26651

Bridges on State Roads, by Rafał Sobirajski, 7 pp. POLISH, per, Drogownictwo, Vol XIX, No 7, 8, 1964, pp 192-196. JPRS 26651

Mechanization of Road and Bridge Construction Work, by Alfons Feder, Henryk Wojciechowski, 13 pp. POLISH, per, Drogownictwo, Vol XIX, No 7, 8, 1964, pp 196-203. JPRS 26651

Achievements of Polish Electric Power Engineering, by Wacław Fiszer, 11 pp. POLISH, per, Energetyka, No 7, 1964, pp 93-197. JPRS 26967

Production and Application of Plastics in East Germany, by Walter Hofmann, 10 pp. POLISH, per, Gospodarka Materiałowa, No 14, Jul 1964, pp 471-475. JPRS 26567

Achievements of the Coke Industry During Past 20 Years, by Józef Kociaż, 9 pp. POLISH, per, Koks, Smola, Gaz, No 3, May, Jun 1964, pp 73-77. JPRS 27000

Analysis of Crude Oil From "Rybaki" Well, by Olga Gesch-wind, Stanisława Hypta, 10 pp. POLISH, per, Nafta, No 7, 1964, pp 188-193. JPRS 26957

Drilling Operations of Petroleum Industry in 1963, by Tadeusz Bęczak, 5 pp. POLISH, per, Nafta, No 7, 1964, pp 193-195. JPRS 26957

Basic Principles of a Uniform Transport System, by A. Nayda, 11 pp. POLISH, per, Przeglad Mechaniczny, No 12, 1963, pp 423-429. ACSI I-5330
ID 2204031164
525th MI Gp

Eastern Europe
Economic (Contd)

Accomplishing Earthworks and Foundations Under the Pneumatic Coat, by Bolesław Kalinski, 7 pp. POLISH, per, Przeglad Budowlany, No 2, 1964, pp 76-79. ACSI I-5377
ID 2204032864
525th MI Gp

Wage Structure and Proportions in Industry, by Bronisław Fick, 12 pp. POLISH, per, Wiedomosci Statystyczne, No 4, Jul-Aug 1964, pp 16-20. JPRS 26756

Central Economic Problems of the Warsaw Region, by Tadeusz Mryzygiel, 3 pp. POLISH, np, Zycie Gospodarcze, 16 Aug 1964, p 3. JPRS 26756

Non-Cash Transactions in Rural Areas, by Franciszek Nasiński, 5 pp. POLISH, np, Zycie Gospodarcze, 16 Aug 1964, p 6. JPRS 26756

How to Perfect the Mechanism of the Economy, by Zbigniew Majdi, 7 pp. POLISH, np, Zycie Gospodarcze, 6 Sep 1964, pp 1, 2. JPRS 26756

The Construction Industry in the 20 Years Since the Liberation, by N. Drogceanu, 11 pp. RUMANIAN, np, Constructorul, 22 Aug 1964, pp 1-3. JPRS 26651

Investments and the Role of the Investment Bank Agencies, by M. Diamantopol, 5 pp. RUMANIAN, np, Gazeta Finantelor, 22 Jul 1964, pp 1, 2. JPRS 26756

The Rational Utilization of Material and Financial Resources in Different Branches of Industry, by Gh. Sivlovan, H. Falcon, 14 pp. RUMANIAN, per, Probleme Economice, Vol XVII, No 7, 1964, pp 36-48. JPRS 26557

Improvement in the Utilization of Transportation Facilities, by A. Schachter, 13 pp. RUMANIAN, per, Probleme Economice, Vol XVI, No 7, 1964, pp 49-50. JPRS 26682

Development of Foreign Trade in Chemical Products, by A. Dusan, 34 pp. RUMANIAN, per, Probleme Economice, No 7, 1964, pp 79-87. JPRS 26747

The Development of Railroad Transport in Rumania in 1944-1964, 6 pp. RUMANIAN, per, Revista Caielor Ferate, No 7, 1964, pp 353, 354, 373. JPRS 26682

20 Years of Highway Modernization, by Gheorghe Moisescu, 10 pp. RUMANIAN, per, Revista Transporturilor, Vol XI, No 8, 1964, pp 339-347. JPRS 26651

Research in the Field of Automobile Transport and Highway Construction and Maintenance, by Radu Manolescu, 12 pp. RUMANIAN, per, Revista Transporturilor, Vol XI, No 8, 1964, pp 347-356. JPRS 26651

Eastern Europe
Economic (Contd)

Some Characteristics of the Long Range Program for the Economic Development of Bulgaria, by Belina Grasjani, 12 pp. SERBIAN, per, Međunarodni Problemi, No 1, Jan-Mar 1964, pp 71-80. JPRS 26651

The First Yugoslav Uranium Mine is Put into Operation, by Evgenije Kostic, 9 pp. SERBIAN, per, Tehnika, No 8, 1964, pp 1423-1425. JPRS 26652

The Uranium Deposits of Stara Planina, by Milan Ristic, 29 pp. SERBIAN, per, Tehnika, No 8, 1964, pp 1426-1434. JPRS 26652

The Plant for Processing Uranium Ore at Kalna, 20 pp. SERBIAN, per, Tehnika, No 8, 1964, pp 1437-1442a. JPRS 26652

A Review of Passenger Transport by the Yugoslav Railways, by Nada Peric, 8 pp. SERBIAN, per, Zeleznice, No 6, 1964, pp 10-12. JPRS 26651

The Law on Amendments and Supplements to the Law on Enterprises for Airfield Services, by Djordje Dokleatic, 8 pp. SERBOCROATIAN, per, Nova Administracija, No 5, 1964, pp 39-51. JPRS 26657

The Structure and Periodicity of Capital Investments, by Vladimir Pejovski, 13 pp. SERBOCROATIAN, per, Vjesnik Jugoslovenske Investicione Banke, No 90, Jun 1964, pp 2-6. JPRS 26687

The Demand for Cement and the Further Development of the Yugoslav Cement Industry, 8 pp. SERBOCROATIAN, per, Vjesnik Jugoslovenske Investicione Banke, No 90, Jun 1964, pp 10-13. JPRS 27000

Political

Economic Collaboration With the Socialist Nations and the Building of Socialism and Communism in Bulgaria, by Stanko Todorov, 18 pp. BULGARIAN, per, Nova Vreme, No 9, 1964, pp 92-105. JPRS 26747

The Need to Improve Party Guidance of People's Councils in Bulgaria, by Ivan Buchvarov, 12 pp. BULGARIAN, per, Partien Zhivot, No 12, Aug 1964, pp 45-52. JPRS 27036

Current Problems of Communist Party Theory, by Ljubomir Tadic, 13 pp. CROATIAN, per, Pregled, No 6, 1964, pp 557-566. JPRS 26662

Problems of the Theory of the Party, by Besim Ibrahimasic, 14 pp. CROATIAN, per, Pregled, No 6, 1964, pp 567-578. JPRS 26662

Eastern Europe
Political (Contd)

Socialist Democracy and the SKJ, by Svetozar Stojanovic, 14 pp. CROATIAN, per, Pregled, No 6, 1964, pp 579-590. JPRS 26662

Standary Jurisdiction of the Federal Executive Branch, by N. Filipovic, 8 pp. CROATIAN, per, Uprava, Vol XII, No 5, 6, 1964, pp 165; 168-174. JPRS 27036

Organization of Opština Administration, by J. Japuncic, 9 pp. CROATIAN, per, Uprava, Vol XII, No 5, 6, 1964, pp 191-197. JPRS 27036

Czech Review of Wetter and Leonhard's Soviet Ideology Today, by V. Gardavsky, J. Sedlak, 12 pp. CZECH, per, Nova Mysl, No 8, 1964, pp 936-945. JPRS 26771

The Power and Responsibility of the Newman's Word, by Adolf Hradecky, 9 pp. CZECH, per, Nova Mysl, No 9, 1964, pp 1104-1110. JPRS 27026

The Struggle for a Common State of Czechs and Slovaks, by Ferdinand Beer, 11 pp. CZECH, per, Nova Mysl, No 9, 1964, pp 1042-1050. JPRS 27026

Freedom Philosophy or Enlightened Dogmatism? On the Thought of Robert Havemann, by Peter Christian Lutz, 37 pp. GERMAN, per, SBZ-Archiv, No 12, 13, Jul 1964, pp 183-189; 193-201. JPRS 26668

Hungarian Communist Party Calls for Unity, by Bela Rieszku, 10 pp. HUNGARIAN, per, Tarsadalmi Szemle, No 8, 9, 1964, pp 1-10. JPRS 26771

Cuba and Its Construction Problems, by Zygmunt Kotarski, 11 pp. POLISH, per, Przeglad Budowlany, No 6, 1964, pp 289-297. JPRS 26630

Yugoslav Discusses Strife in International Communist Movement, by Sonia Dapchevich-Oreshchanin, 9 pp. SERBOCROATIAN, per, Međunarodni Problemi, No 1, Jan-Mar 1964, pp 9-17. JPRS 26771

Military

Better Training Preparation for Commanders, by D. Velev, 10 pp. BULGARIAN, per, Narodna Armiya, 15, 16 Aug 1964, p 2. JPRS 26636

Decree of the Ministry of National Defense on the Delivery of Products and Development Projects for Defense Purposes, 17 pp. CZECH, per, Shirka Zakonu, No 50, 20 Jun 1964, pp 825-828. JPRS 26636

Eastern Europe
Military (Contd)

Modern Weapons in Naval Warfare, by Sunter Larisch.
GERMAN, bk, Moderne Waffen im Seekrieg,
Attachment to IR 5-319-0038-64, Encl 1.
*Navy/ONI 1026

Defense Against Chemical Warfare Agents,
by A. Langhans, E. Haase, et al.
GERMAN, bk, Schutz von Massen Vernichtungsmitteln,
Berlin, 1963, pp 59-110.
FSTC Tr Log No 168

From Armed Helicopter to Combat Helicopter,
5 pp.
GERMAN, por, Wehr und Wirtschaft, No 7, 1964,
pp 304-305. 9695108
FSTC 381-764-9

Airborne Cavalry, by M. Sadykiewicz, 160 pp.
POLISH, bk, Kawaleria Powietrzna, Warsaw, 1963,
pp 134-308. 9695480
FTD-TT-64-116

Education of Youth in the Armed Forces of Rumania,
by Ion Dincu, 3 pp.
RUMANIAN, per, Tinerul Leninist, No 8, 1964, pp 38-43.
JPRS 27034

Geographic

The Definition of the Term Map and Its Limitations,
by Wilfried Krallert, 14 pp.
GERMAN, per, Internationales Jahrbuch fuer Kartographie, 1963, pp 39-53. (Call No GAI01 162, 1963,
Copy 6, Eng Tr)
Army Map Service

Introduction To Triangulation Survey in Geodesy,
by A. Mihail, 9 pp.
RUMANIAN, bk, Ninelement Triangularie si Geodesie,
Vol 1, 1953, pp 1-6.
ACSI 1-3665
ID 2251728

Sociological

The Schools of Higher Education are Adding to Their
New Successes, by Muntaz Shehu, 6 pp.
ALBANIAN, np, Zeri i Popullit, 3 Sep 1964, p 3.
JPRS 26853

Labor and Wage Legislation--A Great Victory for Our
Workers and a Means of Educating Them,
by Theodor Heba, 5 pp.
ALBANIAN, np, Zeri i Popullit, 5 Sep 1964, p 2.
JPRS 26853

Size of Dwellings in Czechoslovakia,
by Zdenek Jurecek, 14 pp.
CZECH, per, Demografie, No 3, 1964, pp 193-201.
JPRS 26969

Eastern Europe
Sociological (Contd)

Regional Differences in Mortality Causes Prevailing
in the Czechoslovak Population, by Milan Kucera,
Ladislav Ruzicka, 15 pp.
CZECH, per, Demografie, No 3, 1964, pp 203-212.
JPRS 26969

Experiences of Pregnancy Interruption Commissions, and
Present Practice of the Artificial Pregnancy Interruption
Act, by Jiri Prokopec, 9 pp.
CZECH, per, Demografie, No 3, 1964, pp 242-247.
JPRS 26969

Endogenic and Infant Mortality, by Frantisek Pajfr, 9 pp.
CZECH, per, Demografie, No 3, 1964, pp 248-253.
JPRS 26969

Karvar^a Controversy Regarding Drama, by Karel Kostroun,
10 pp.
CZECH, per, Nova Myta, No 8, 1964, pp 1020-1023.
JPRS 27036

Betrayed Art, About Marxist Aesthetics,
by Fritz J. Radatz, 6 pp.
GERMAN, np, Sueddeutsche Zeitung, 29, 30 Aug 1964,
1 p.
JPRS 26868

Report of a Hungarian Study Tour in the Soviet Union,
by Jeno Nemeth, 6 pp.
HUNGARIAN, per, A Magyar Tudomanyos Akademia
Kemisi Tudomanyok Osztalyanak Kozilemenyei, No 2,
25 Aug 1964, pp 281-283.
JPRS 26971

Report of Our Study of Yugoslavia,
by G. V. Putrakaja, Lajos Matua, 9 pp.
HUNGARIAN, per, Magyar Tudomanyos Akademia
Kemisi Tudomanyok Osztalyanak Kozilemenyei,
Vol XXI, No 3, 4, pp 460-465.
JPRS 26634

Report of a Study Tour to Poland, by Ferenc Dutka,
5 pp.
HUNGARIAN, per, Magyar Tudomanyos Akademia
Kemisi Tudomanyok Osztalyanak Kozilemenyei,
Vol XXI, No 3, 4, pp 465-467.
JPRS 26634

Scientific Technical and Economic Information
Service Guide, by Ryszard Pas, 261 pp.
POLISH, bk, Informator Sluzby Informacji Naukowo-
Technicznej i Ekonomicznej, Warsaw, 1960.
OTS 02-11061
PL-480

Personal Income and Living Expenses,
by Miodrag Cvetkovic, 7 pp.
SERBOCROATIAN, per, Privredni Pregled, 22 Aug 1964,
p 6.
JPRS 26868

Concept and Essential Elements of Material Liability
of Employed Persons, by Aleksandar Baltic, 16 pp.
SERBOCROATIAN, per, Socijalna Politika, No 6,
1964, pp 659-671.
JPRS 26709

Working Organizations in System of Financing
Social Insurance, by Rista Stefanovic, 8 pp.
SERBOCROATIAN, per, Socijalna Politika, No 6,
1964, pp 678-683.
JPRS 26709

Eastern Europe
Sociological (Contd)

Social Insurance in 1963, by Gojko Vujnovic, 14 pp.
SERBOCROATIAN, per, Socijalna Politika, No 6, 1964, pp 683-693.
JPRS 26709

The Organization of Instruction and Research at the University of Zagreb, 40 pp.
SERBOCROATIAN, per, Sveuclinski Vjesnik, Vol X, No 182, 1 Jun 1964, pp 151-176.
JPRS 26684

The Development of Postgraduate Medical Training in Slovakia, by Emil Makovicky, 7 pp.
SLOVAK, per, Lekarsky Obzor, No 7, 1964, pp 353-359.
JPRS 26703

WESTERN EUROPE

Economic

Transportation Analysis for Oppland, by Arne Finstad, 9 pp.
NORWEGIAN, per, Norsk Verdenskritt, No 2, 1964, pp 25-29. (Call No TE4 N86, no 2, Eng Tr)
Army Map Service

Political

De Groot Recalls Seventh Communist International Congress, by Paul de Groot, 15 pp.
DUTCH, per, Politiek en Cultuur, No 7, 8, 1964, pp 289-301.
JPRS 26771

Finnish Dissident Communist View of the Situation in the Communist Party of the Netherlands, by Peritus, 7 pp.
FINNISH, per, Tilanne, No 6, Apr 1964, pp 132-137.
JPRS 26869

Boris Leontyev: Whom Does Mr. Pennanen Serve, by Boris Leontyev, 5 pp.
FINNISH, per, Tilanne, No 7, 1 May 1964, pp 247-271.
JPRS 26954

Tilanne Compares Leontyev Charges With the Facts, 10 pp.
FINNISH, per, Tilanne, No 7, 1 May 1964, pp 268-269.
JPRS 26944

Claude Harmel on the Thorez-Togliatti Feud, by Claude Harmel, 9 pp.
FRENCH, per, Est et Ouest, No 326, 16-30 Sep 1964, pp 1-8.
JPRS 26972

French Communist Party Hopes for Moscow Communist Conference, by Charles Haroche, 10 pp.
FRENCH, per, France Nouvelle, No 986, 15 Sep 1964, pp 15, 16.
JPRS 26641

Western Europe
Political (Contd)

Jacques Duclos Calls for Faithfulness to Marxist-Leninist Doctrine, by Jacques Duclos, 18 pp.
FRENCH, np, France Nouvelle, No 989, pp 1-4.
JPRS 27035

French Ex-Communist Reviews Italian Communist Party's Recent Past, by Serge Mallet, 8 pp.
FRENCH, np, France Observateur, No 747, 27 Aug 1964, p 6.
JPRS 26771

Togliatti Testament More Weighty Than Chinese Stand, by Gilles Martinet, 7 pp.
FRENCH, np, France Observateur, No 749, 10 Sep 1964, pp 6, 7.
JPRS 26641

German Independent Organ Comments on West Germany's Political Future, by Karl Gustav Stroehm, 5 pp.
GERMAN, np, Christ und Welt, No 37, 11 Sep 1964, p 3.
JPRS 26972

Spanish Communist Chief Quoted in Neues Deutschland on the Development of Marxism-Leninism, by Santiago Carillo, 9 pp.
GERMAN, per, Neues Deutschland, 28 Sep 1964, pp 3, 4.
JPRS 26972

Volksstimme Reviews History of the International, by Franz Marx, 5 pp.
GERMAN, np, Volksstimme, 20 Sep 1964, p 3.
JPRS 26972

Avanti Probes Sino-Soviet Land Quarrel, by Luciano Vassalli, 6 pp.
ITALIAN, np, Avanti, 27 Sep 1964, p 8.
JPRS 26972

Avanti Sees Togliatti Memo as Key to Future Course of Italian Communist Party, by Francesco De Martino, 8 pp.
ITALIAN, np, Avanti, 4 Oct 1964, p 5.
JPRS 27035

Libertini Comments on Religious Aspect of Togliatti Memorandum, by Lucio Libertini, 7 pp.
ITALIAN, np, Mondo Nuovo, No 37, 20 Sep 1964, p 3.
JPRS 26951

Interview With Che Guevara, by Eduardo Galeano, 5 pp.
ITALIAN, np, Mondo Nuovo, Vol VI, No 37, 20 Sep 1964, p 7.
JPRS 26834

Italian Socialist Discusses Century Following First International, by Lelio Basso, 5 pp.
ITALIAN, np, Mondo Nuovo, No 38, 27 Sep 1964, pp 1, 2.
JPRS 26972

Vie Nuove Interviews Luigi Longo, by Luigi Longo, 5 pp.
ITALIAN, np, Vie Nuove, No 36, 3 Sep 1964, pp 4, 8.
JPRS 26641

Gramsci Institute Lecture Series on Morals and Society, 8 pp.
ITALIAN, np, Rinascita, 1, 8, 22 Aug; 19 Sep 1964.
JPRS 26989

The Roots of the Moral Life, by Cesare Luporini, 18 pp.
ITALIAN, np, Rinascita, 8 Aug, pp 17-19.
JPRS 26989

Western Europe
Political (Contd)

Italian Communist Party Organ Criticizes Church Hostility to Communism, by Alessandro Natta, 7 pp. ITALIAN, np, Rinascita, No 37, 19 Sep 1964, pp 1, 2. JPRS 26771

Pajetta Attacks Red Chinese Extremism as Harmful to World Communism, by Giancarlo Pajetta, 5 pp. ITALIAN, np, Rinascita, No 38, 26 Sep 1964, pp 1, 2. JPRS 27035

Italian Communist Party Weekly Discusses Togliatti Memo and Economic Planning, by Gerardo Chiaramonte, 8 pp. ITALIAN, np, Rinascita, No 38, 26 Sep 1964, pp 6, 7. JPRS 27035

Longo Liste Party Aims in TV Press Conference, 11 pp. ITALIAN, np, L'Unita, 11 Sep 1964, pp 1, 3. JPRS 26771

PCI Central Committee Comments on Togliatti Yalta Memorandum, 12 pp. ITALIAN, np, L'Unita, 20 Sep 1964, pp 3, 4. JPRS 26771

Brussels Meeting of Social-Democrats Attacked by Pravda, by T. Timofeyev, 5 pp. RUSSIAN, np, Pravda, 21 Sep 1964, p 5. JPRS 27035

Military

A School for Men 1964, 24 pp. FINNISH, rpt, Miehent Koulu 1964, 1964, 81 pp. ACSI I-5408-A ID 2204051164

Available Leaders, 19 pp. FINNISH, per, Sotilas Alkakauslaiti, Vol XXXVII, No 7, 9 1962, pp 323-333. ACSI I-5745 ID 2204046264

Army Center for Transfusion-Resuscitation: Jean-Juillard Clamart - Organization - Operation, 37 pp. FRENCH, rpt, Le Centre de Transfusion-Reanimation de l'Armee Jean-Juillard Clamart - Organisation - Fonctionnement, 1961, 91 pp. ACSI I-4882 ID 2830030263

Architecture, Fire, and Civil Defense, by Beltramelli, 16 pp. FRENCH, per, Protection Civile et Industrielle, No 11, Mar 1964, pp 7-13. ACSI I-5118 ID 2204045864

The French Combat Tank AMX30; The Light Combat Vehicle Even; The New Swedish Combat Tank S, 7 pp. GERMAN, per, Allgemeine Schweizerische Militär-zeitschrift, No 9, 1963, pp 530, 531, 549. ACSI I-5639 ID 2204043864

Report - Abstract From the Defense Research Institute, 15 pp. SWEDISH, rpt, Rapport - Referat Fran Forsvarets Forskningsanstalt, Sundbyberg, Jan-Apr; Jul, Sep, Nov 1963. ACSI I-5334 ID 2204031564

Western Europe
Geographic

Commission on National Atlases, by K. Salichtchev, 8 pp. FRENCH, per, Le Bulletin de Nouvelles de l'UGI, Vol IV, No 1, 2, 1964, pp 20-25. (Call No vol IV, no 1, 2, 1964, Eng Tr) Army Map Service

The Twelfth General Congress of the International Union of Geodesy and Geophysics, by N. Pierrakeas, 7 pp. GREEK, per, Dhletion Yegografikis Ipiresias, No 78, 1960, pp 109-115. (Call No GA 101 G79, No 78, Eng Tr) Army Map Service

International Scientific News, by N. Pierrakeas, 9 pp. GREEK, per, Dhletion Yegografikis Ipiresias, No 79, 1960, pp 59-65. (Call No GA 101 G79, No 79, Eng Tr) Army Map Service

Sociological

Czech Philosopher Breathes Life into Gramsci Institute Conference, 5 pp. ITALIAN, per, Il Filo Rosso, Vol II, No 9, May-Jul 1964, pp 3-7. JPRS 26869

AFRICA

Economic

Economic and Sociological Situation in Draa El Mizan, by Cherif Djemad, 5 pp. FRENCH, np, Alger Republicain, 31 Jul 1964, 1 Aug 1964. JPRS 26575

Unimes is Created, 5 pp. FRENCH, np, Alger Republicain, No 656, 27 Aug 1964, p 2. JPRS 26624

Evolution of Commercial Exchanges Between Syria and the States of the Arab Maghreb, Alongside the Syrian Delegation Touring North Africa, by Samit A. Darwich, 5 pp. FRENCH, np, Le Commerce du Levant, 26 Aug 1964, p 3. JPRS 26604

Hope for Africa in Twenty Years, by Georges Hourdin, 5 pp. FRENCH, per, Croissance des Jeunes Nations, No 36, Sep 1964, pp 3; 8-14. JPRS 26710

The Economic Development Plan of Spanish Guinea, 6 pp. FRENCH, per, Industries et Travaux d'Outremer, No 126, May 1964, pp 421-423. (Call No HC279 142, No 126, Eng Tr) Army Map Service

Africa
Economic (Contd)

The Transcameroon Railroad, 5 pp.
FRENCH, per, Industries et Travaux d'Outremer, No 126, May 1964, pp 431-432. (Call No HC279 142, No 126, Eng Tr)
Army Map Service

New Banking Regulations Taking Effect in June 1964 Concern Foreign Trade in Part, 23 pp.
FRENCH, per, Journal Officiel de la République Rwandaise, Vol III, No 11, 1 Jun 1964, pp 169-180.
JPRS 26780

Mineral Production in Eleven States of French-Speaking Africa in 1963, 5 pp.
FRENCH, per, Le Moniteur Africain, No 149, 8 Aug 1964, p 6.
JPRS 26780

Situation and Prospects of the Medea District, 8 pp.
FRENCH, np, Le Peuple, 19, 20, 21 Aug 1964, p 6.
JPRS 26624

National Transportation Office, 6 pp.
FRENCH, np, Le Peuple, 21 Aug 1964, p 2; 24 Aug 1964, p 3.
JPRS 26624

Press Conference of the Minister of the National Economy Bachir Boumaza, 6 pp.
FRENCH, np, La République, 14 Aug 1964, p 6.
JPRS 26624

Labor Difficulties in the Algerian Credit and Bank Company, 5 pp.
FRENCH, np, Revolution et Travail, 2 Jul 1964, p 12.
JPRS 26575

Is Self-Management a Faded Flower, by Yahya, 6 pp.
FRENCH, np, Revolution et Travail, 9 Jul 1964, pp 6, 7.
JPRS 26575

Who's Killing Autogestion, 6 pp.
FRENCH, np, Revolution et Travail, No 51, 13 Aug 1964, p 7.
JPRS 26624

Senegal on the Move, 16 pp.
FRENCH, per, Tropiques, No 449, May 1962, pp 49-58. (Call No JV4 T85, No 449, Eng Tr)
Army Map Service

Rhodesia - An Original Logging Railway, 6 pp.
FRENCH, per, La Vie du Rail Outremer, Vol LXV, No 122, May 1964, pp 14, 15. (Call No HE3421, vol 65, no 122, Eng Tr)
Army Map Service

Political

The Socialist Experience in Mali As Viewed in Algeria, 13 pp.
FRENCH, np, Alger Républicain, Vol XXVIII, No 644, 646, 649, 651, 13-21 Aug 1964, p 7.
JPRS 26624

The Role of Intellectuals in an Avant Garde Party, by Joseph Vanden Keycen, 9 pp.
FRENCH, np, Diplante, No 36, 11 Jul 1964, pp 1-4; No 37, 18 Jul 1964, pp 5, 6.
JPRS 26710

Africa
Political (Contd)

Roberto Holden Interviewed Concerning Present Situation of Angolan Nationalists, 8 pp.
FRENCH, np, Le Drapeau Rouge, 12 Sep 1964, p 16.
JPRS 26624

How the Pilot Regions Are Organized, 5 pp.
FRENCH, np, Le Peuple, 6 Aug 1964, p 3; 7 Aug 1964, pp 1, 3.
JPRS 26757

Economic Development in Tizi Ouzou (Grande Kabylie), 8 pp.
FRENCH, np, Le Peuple, 10 Aug 1964, p 3; 12 Aug 1964, pp 1, 3; 13 Aug 1964, pp 1, 3.
JPRS 26757

Lobito: Seat of the Council, 6 pp.
PORTUGUESE, per, Rotero das Principais Cidades e Vilas, 1959, pp 120-122. (Call No DT585 A61, Eng Tr)
Army Map Service

Geographic

The Malagasy Geographic Service, 6 pp.
FRENCH, np, Le Courier de Madagascar, 6-8, 10 Aug 1964, p 2.
JPRS 26624

Connection of Lamco's Geodetical Net and Maps, by Arne Bjoerhammar, 9 pp.
SWEDISH, rpt, Konnektion av Lamco's Geodetiska Net och Kartor, Nimba, Liberia, Nov 1958, pp 1-11.
ACSI 1-4823
ID 2204019364

Sociological

Socio-Religious Organizations in Black Africa, by B. Holas, 20 pp.
FRENCH, per, Bulletin de l'Institut Français d'Afrique Noire, Vol XXVI, No 1, 2, 1964, pp 40-70.
JPRS 26710

Myth and Structures in African Traditional Societies, by Viviane Paques, 7 pp.
FRENCH, per, Bulletin de l'Institut Français d'Afrique Noire, Vol XXVI, No 1, 2, Jan-Apr 1964, pp 71-77.
JPRS 26710

Status of Education in French-Speaking Africa, by Michel Dumas, 5 pp.
FRENCH, per, Croissance des Jeunes Nations, No 36, Sep 1964, pp 3; 8-14.
JPRS 26710

MIDDLE EAST

FAR EAST

Economic

Water and Its Use in Israel, by Dan Goldberg, 23 pp.
 HEBREW, per, Mada, Jul 1964, pp 31-38.
 JPRS 26590

In the Research Institutes of Israel, 14 pp.
 HEBREW, per, Mada, Jul 1964, pp 71-76, 104.
 JPRS 26590

Political

Comment by Arab Socialists in Syria, 8 pp.
 ARABIC, np, Al-Akhbar, 13 Sep 1964, pp 1, 8.
 JPRS 26664

Lebanese Communists Take Pro-Soviet Stand,
 by Amin al-A'war, 5 pp.
 ARABIC, np, al-Akhbar, 20 Sep 1964, pp 1, 8.
 JPRS 27035

Lebanon Independent Criticizes Red Chinese Position,
 9 pp.
 ARABIC, np, al-Akhbar, 20 Sep 1964, p 5.
 JPRS 27035

Military

Merciful Martial Law, by Ahmad Lotfi Hassuna, 6 pp.
 ARABIC, np, Akhbar Al-Yawm, 15 Aug 1964, p 8.
 JPRS 26632

Sociological

The Development of the Department of Mechanical
 Engineering in the Tekhnion, 13 pp.
 HEBREW, per, Yediot Hatekhnion, No 67, Jun 1964,
 pp 12-14.
 JPRS 26986

The Recipients of Doctor of Science Degree, 7 pp.
 HEBREW, per, Yediot Hatekhnion, No 67, Jun 1964,
 p 20.
 JPRS 26986

Economic

Mobilize the Masses and Correctly Direct Agro-Technical
 Reforms, by Wang Jen-chung, 16 pp.
 CHINESE, per, Hung-chi, No 16, 31 Aug 1964, pp 12-20.
 JPRS 26890

Mechanism of Freezing and Drying in Microorganisms,
 by Tokio Nii, 8 pp.
 JAPANESE, per, Journal of Fermentation Technology,
 No 2, 1964, pp 51-55.
 ACSI I-5423
 ID 2204033364

Freeze Drying of Microorganisms on the Protective
 Action of Suspending Medium in the Process of
 Freeze -Drying, by Toshiki Morichi, 11 pp.
 JAPANESE, per, Journal of Fermentation Technology,
 No 2, 1964, pp 56-61.
 ACSI I-5422
 ID 2204033264

The Role of Local Industries in Linking the Urban
 With Agricultural Economies, by Hong Sung-un, 8 pp.
 KOREAN, per, Kuklo, No 12, 20 Jun 1964, pp 13-19.
 JPRS 26623

Cooperative Production in the Machine Industry,
 by An Byung-ch'iul, 7 pp.
 KOREAN, per, Kyongje Chisik, No 6, 1964, pp 1-5.
 JPRS 26623

Livestock Production of Cooperative Farms,
 by Cho Ch'ang-son, 7 pp.
 KOREAN, per, Kyongje Chisik, No 7, 1964,
 pp 38-42.
 JPRS 26623

Democratic Labor Law, by Li Chae-wan, 6 pp.
 KOREAN, per, Nodongja, No 6, 1964, pp 10-13.
 JPRS 26623

Socialist Principles of Distribution and Reward
 System for Work Teams, by Kim To-sung, 6 pp.
 KOREAN, per, Nodongja, Jun 1964, pp 61-64.
 JPRS 26623

The Economic Development of the Yemeni Arab
 Republic, by Ye. K. Golubovskaya, 11 pp.
 RUSSIAN, per, Narod Azii i Afriki, No 4,
 Jul, Aug 1964, pp 22-30.
 JPRS 26611

The Mass Characteristic of Labor Unions,
 by Tran Huu Thanh, 6 pp.
 VIETNAMESE, np, Lao Dong, 13 Aug 1964, p 2.
 JPRS 26571

Good Casting, by Tran Dung Tien, 5 pp.
 VIETNAMESE, np, Nhan Dan, 29 Aug 1964, p 3.
 JPRS 26571

Food Distribution in Hanoi, by Tran Nguyen, 7 pp.
 VIETNAMESE, np, Nhan Dan, 11 Sep 1964, p 2.
 JPRS 26983

Ten Years of Industrial Development at Hanoi,
 by Nguyen Trung Mai, 6 pp.
 VIETNAMESE, np, Thu Do Ha Noi, 23 Aug 1964, p 4.
 JPRS 27046

Hanoi Construction, by Ngo Duy Cao, 7 pp.
 VIETNAMESE, np, Thu Do Ha Noi, 25 Aug 1964, p 4.
 JPRS 27046

Far East
Political

A New Debate on the Philosophical Front, 8 pp.
CHINESE, per, Hung-ch'i, No 16, 31 Aug 1964, pp 7-11.
JPRS 26896

United States Imperialism is the Greatest Plunderer of the Petroleum of Asia, Africa, and Latin America, by Shih Ching-tsung, 13 pp.
CHINESE, per, Hung-ch'i, No 16, 31 Aug 1964, pp 29-39.
JPRS 26896

China Seen as Age-Old Victim of Internal and Foreign Aggression, by Liu Tu-Nien, 29 pp.
CHINESE, per, Li-shih Yen-chiu, No 7, 20 Jul 1964, pp 101-118.
JPRS 26972

The International Situation in the Past Six Months, 12 pp.
CHINESE, per, Shih-chih Chih-shih, No 13, 10 Jul 1964, pp 4-10.
JPRS 26608

An Interview With D. N. Aidit, 8 pp.
INDONESIAN, np, Harian Rakjat, 20 Aug 1964, p 3.
JPRS 26656

Importance of the Peasants' Movement, 5 pp.
INDONESIAN, np, Harian Rakjat, 22 Aug 1964, p 3.
JPRS 26656

The Republic of Indonesia and the Democratic Republic of Vietnam Are Shoulder to Shoulder in the Fight Against Imperialism, by Truong Chinh, 7 pp.
INDONESIAN, np, Harian Rakjat, 27 Aug 1964, p 3.
JPRS 26549

Joint Statement of the Indonesian and Japanese Communist parties, 5 pp.
INDONESIAN, np, Harian Rakjat, 10 Sep 1964, p 1.
JPRS 26984

Speech of T. Ragchaa, Deputy Chairman of the MPR Council of Ministers, at the Meeting on the Occasion of the Forty-Third Anniversary of the People's Revolution, 5 pp.
MONGOLIAN, np, Ildalmor, 14 Jul 1964, p 2.
JPRS 26544

Quang Binh's Experiences in the Construction of a New Countryside, by Nguyen Tu Thoan, 5 pp.
VIETNAMESE, np, Nhan Dan, 5 Sep 1964, p 3.
JPRS 26981

The Three Heights Movement to Increase Labor Productivity, by Le Thanh Nghi, 5 pp.
VIETNAMESE, np, Nhan Dan, 8 Sep 1964, p 3.
JPRS 26981

Leadership of the People's Militia and Self-Defense Forces, by Vu Phung, 7 pp.
VIETNAMESE, np, Nhan Dan, 9 Sep 1964, p 2.
JPRS 26981

The Ninth Anniversary of the Vietnam Fatherland Front, by Hoang Quoc Viet, 6 pp.
VIETNAMESE, np, Nhan Dan, 10 Sep 1964, pp 1, 2.
JPRS 26981

Build-Up and Consolidate the Four-Good Party Chapter, by Vu Dung, 5 pp.
VIETNAMESE, np, Nhan Dan, 14 Sep 1964, p 3.
JPRS 26981

The Party's Outlook and Political Line Concerning Finance, 7 pp.
VIETNAMESE, np, Nhan Dan, 19 Sep 1964, p 3.
JPRS 26981

Far East
Military

The United States Monopolistic Capital and the Military Atomic Industry, by T'ung Wei-jen, 12 pp.
CHINESE, per, Hung-ch'i, No 15, 1964, pp 43-49.
JPRS 26609

Guerrilla Activities of Small Units - Training Material 35-204 Land Command Staff .. Syowa 35, 163 pp.
JAPANESE, rpt.
ACSI I-2089
ID 221678
319th MI Bn

Army Regulation Regarding Army Uniforms and the Wearing of Army Uniforms B.E. 2505, 146 pp.
THAI, rpt, Encl to IR 2895003363, 29 Jun 1963, pp 1-23; 25-142.
ACSI I-3711
ID 2230260
319th MI Bn

Good Combat Readiness and Good Training, by Le Trong Tan, 7 pp.
VIETNAMESE, np, Quân Đội Nhân Dân, 5 Sep 1964, pp 1, 2.
JPRS 26981

Sociological

Cheers to the Contemporary Themes of the Revolutionary Peking Opera, by Ch'en Ch'i-t'ung, 8 pp.
CHINESE, per, Hung-ch'i, No 15, 15 Aug 1964, pp 23-26.
JPRS 26609

Firmly Carry the Revolution of the Peking Opera to the End, by Li Ch'i, 9 pp.
CHINESE, per, Hung-ch'i, No 13, 15 Aug 1964, pp 27-31.
JPRS 26509

Persist in the Revolutionary Direction in Peking Operas, by Wang Sh'ao-wen, 24 pp.
CHINESE, per, Hung-ch'i, No 16, 31 Aug 1964, pp 44-53.
JPRS 26896

Serve the Workers, Peasants, and Soldiers With a Distinctively National Literature and Art, by D. N. Aidit, 8 pp.
INDONESIAN, np, Harian Rakjat, 3 Sep 1964, p 3.
JPRS 26549

The Uigur, Tungan, and Korean Minorities in Soviet Central Asia and Kazakhstan, by S. P. Tolstov, 120 pp.
RUSSIAN, bk, Narody Sredney Azii i Kazakhstana, Moscow, Vol XI, 1963, pp 488-581; 704-705.
JPRS 26540

Mongolian News Agency Comments on Mao Tse-Tung's Talk With Japanese Socialists, 5 pp.
RUSSIAN, np, Pravda, 10 Sep 1964, p 4.
JPRS 26771

Far East
Sociological (Contd)

Elimination of Typhoid Fever, by Pham Ngoc Thach, 6 pp.
VIETNAMESE, np, Nhan Dan, 13 Sep 1964, p 3.
JPRS 27046

Hanoi, the Cultural Center of Vietnam, by Nguyen Bac, Ho Dac Di, et al, 12 pp.
VIETNAMESE, np, Thu Do Ha Noi, 28, 29, 30 Aug 1964, p 4.
JPRS 27046

Latin America
Geographic

Remarks on a New Landslide in Central Peru, by Gunther, Mary Anne Kunkel, 5 pp.
GERMAN, per, Petermanns Geographische Mitteilungen, Vol C VII, No 4, 1963, pp 266, 267.
(Call No GI P47, vol 107, no 4, Eng Tr)
Army Map Service

LATIN AMERICA

Economic

Railroads in Bolivia, by Protat, 26 pp.
FRENCH, per, La Vie du Rail Outre-Mer, No 125, 1964, pp 21-27. 9695103

FSTC 881-T64-5

Cuba Demonstrated That There Exist No Economical-Social Boundaries in Culture, by Mario Malnade, Jose Gabriel Guma, 5 pp.
SPANISH, np, Revolucion, Vol VIII, No 2, 643, 12 Aug 1964, p 3.
JPRS 26619

More Than 800 Kilometers of Highways Being Built, 5 pp.
SPANISH, np, Revolucion, 7 Sep 1964, p 8.
JPRS 26761

Meeting on the Cuban Economy, 5 pp.
SPANISH, np, La Tarde, 15 Sep 1964, p 2.
JPRS 26761

Sociological

Basic Rules for the Functioning of Educational Councils, 6 pp.
SPANISH, np, El Mundo, 26 Aug 1964, p 5.
JPRS 26630

WORLD WIDE

Economic

Directions of Development in the Credit Systems of the CEMEA Countries, by Wladyslaw Jaworski, 47 pp.
SERBOCROATIAN, per, Finansis, Vol XIX, No 5, 6, 1964, pp 252-263.
JPRS 26747

Political

Political

The Peasant Movement in Latin America, by A. Sivolobov, 13 pp.
RUSSIAN, per, Kommunist, No 12, Aug 1964, pp 100-107.
JPRS 26614

The Technical Revolution and the University School of Political Sciences, by J. B. More Benitez, 13 pp.
SPANISH, per, Cuba Socialista, Sep 1964, pp 64-77.
JPRS 26761

The Cuban Revolution Will Not Take One Step Backward, 14 pp.
SPANISH, per, Cuba Socialista, Sep 1964, pp 102-113.
JPRS 26761

Interview With Guevara, 7 pp.
SPANISH, per, La Nueva Prensa, 8 Aug 1964, pp 53-55.
JPRS 26606

Bolivian Communist Party Attacks Dissident Elements, 11 pp.
SPANISH, np, Unidad, No 215, 15 Aug 1964, pp 4, 5.
JPRS 26771

Law and Peace in International Relations, by Fernando Alvarez Tabio, 28 pp.
SPANISH, per, Cuba Socialista, Sep 1964, pp 36-63.
JPRS 26761

SCIENTIFIC

Scientific
AgricultureAerospace

Relationship Between Aerodynamic and Acoustic Parameters of a Subsonic Gas Jet, by G. Munin, 14 pp. RUSSIAN, bk, Aerodynamika, Part 23, 1962, pp 200-214.
ACSI I-5823
ID 2204050864

Design of Flying Craft, by V. L. Bel'skiy, I. P. Vlasov, 385 pp. RUSSIAN, bk, Konstruktsiya Letatel'nykh Apparatov, Moscow, 1963, pp 55-113; 124-386; 445-464. 9695477
FTD-TT-64-1018

The Training of Soviet Cosmonauts, by V. G. Denisov, 141 pp. RUSSIAN, bk, Kosmonavt Letayet...na Zemli, Moscow, 1964, pp 1-151.
JPRS 26762

Manned Space Stations, by Igor Nikolayevich Bubnov, Lev Nikolevich Kamanin. (DC-10974) RUSSIAN, bk, Obitayemye Kosmicheskiye Stantsii, Moscow, 1964, pp 2-189.
*JPRS

The Mi-6 Transport Helicopter, Largest in the World, by A. Radin, 5 pp. RUSSIAN, per, Grazhdan Avia, No 7, 1964, pp 20, 21.
JPRS 26698

Cosmic Research, 261 pp. RUSSIAN, per, Kosmicheskie Issledovaniya, Vol II, No 5, 1964, pp 637-813. 9695334
FTD-TT-64-1077

The Plasma Jet, by J. Lominadze, 11 pp. RUSSIAN, per, Mekhanika i Tekhnika, No 3, 1960, pp 14-18. 9695061
FTD-TT-64-35

Supersonic Air Commerce - Problems and Projects, by Jochen Grenzdoerfer, 24 pp. GERMAN, per, Aerospot, No 1, 1964, pp 1-11.
9695060
FTD-TT-64-463

The VAK 191 Program, by G. W. Heumann, 12 pp. GERMAN, per, Flug Revue, No 7, 1964, pp 16-20.
ACSI I-5661
ID 2204044064

Effect of Firing Rocket Shells on the Performance of Turbojet Power Plant, by J. Szymankiewicz, 7 pp. POLISH, per, Wojskowy Przeglad Lotniczy, No 8, 1963, pp 22-26. 9695310
FTD-TT-64-388

Cooling of Rocket Engines, by Dragoljub Jovasevic, 19 pp. SERBO-CROATIAN, per, Nauotechnicki Glasnik, No 10, 1963, pp 735-743. 9695234
FTD-TT-64-792

Solid Rocket Propellants, by Dore Jaukovic, 17 pp. SERBO-CROATIAN, per, Vojnorhnicki Glasnik, No 8, 1963, pp 581-590. 9695235
FTD-TT-64-744

British Hovercraft in the Sound, by Ollie Ljungstrom, 7 pp. SWEDISH, per, Teknisk Tidskrift, No 11, 1963.
ACSI I-5440
ID 2204036964

Use of New Development Demanded, by B. Shchorbina, 5 pp. RUSSIAN, np, Izvestiya, 30 Jul 1964, p 3.
JPRS 26962

Procurement Prices and the Development of Agriculture in Bulgaria, by Boris Mladenov, 10 pp. BULGARIAN, per, Trud i Beni, No 7, 1964, pp 77-85.
JPRS 26799

Veterinary Work in Bulgaria, 9 pp. BULGARIAN, per, Veterinarna Sbirka, No 8, 1964, pp 1-7.
JPRS 26799

Progress in Livestock Raising, 1944-1964, by Penko Gerganov, 9 pp. BULGARIAN, per, Zhivotnovouzdravo, No 8, 1964, pp 1-5.
JPRS 26799

Growing Enclosure for Useful Plants, by Ernst Naschke, 5 pp. GERMAN, patent No 1,075,888, Patent Office

Decree on plant Protection for 1964, by Istvan Dobi, Karoly Kiss, 7 pp. HUNGARIAN, per, Mezogazdasagi Ertesito, 31 Jul 1964, pp 433-436.
JPRS 26799

Implementation of Plant Protection and Plant Protection Work, by Pal Losonczi, 15 pp. HUNGARIAN, per, Mezogazdasagi Ertesito, 31 Jul 1964, pp 441-451.
JPRS 26799

Intensive and Multilateral Development of Agriculture, by M. Bulgaru, 22 pp. RUMANIAN, per, Lupta de Clase, No 8, 1964, pp 60-75.
JPRS 26799

Taxation of Private Agricultural Producers, 14 pp. SERBIAN, per, Jugoslovenski Pregled, No 3, 1964, pp 125-129.
JPRS 26799

Production and Consumption of White Grains, 18 pp. SERBIAN, per, Jugoslovenski Pregled, No 3, 1964, pp 130-135.
JPRS 26799

Activities of the Agricultural Science Institute, by Nguyen Tat Thu, 3 pp. VIETNAMESE, per, To Quoc, 1 Sep 1964, pp 16-18.
JPRS 27046

Biological & Medical Sciences

Protein Biosynthesis and the Problems of Ontogenesis, by Zh. A. Medvedev, 146 pp. RUSSIAN, bk, Biosintez Belkov i Problemy Ontogeneza, Moscow, 1963, pp 248-285; 286-304; 304-306; 377-423; 426-431.
JPRS 26572

Translations of Items From the Great Medical Encyclopedia, 54 pp. RUSSIAN, bk, Bol'shaya Meditsinskaya Entsiklopediya, Moscow, No 34, 1964, pp 244-268; 282-280; 1177-1181; 1181-1185.
JPRS 26607

Scientific
Biological & Medical Sciences (Contd)

Physiological Reactions of the Human Organism to Transverse Accelerations and Means of Raising the Resistance to Such Forces: Paper Presented at the Fifteenth International Astronautical Congress Held in Warsaw on 7-12 September 1964, by A. S. Barer, et al, 14 pp.
 RUSSIAN, rpt, Fiziologicheskie Reaktsii Organizma Cheloveka na Poperechno Napravленные Ускорения i Nekotorye Pochvushcheniya Ustroichivosti k Etim Vozdeystviyam, Warsaw, 7-12 Sep 1964. 9225815
 NASA TT F-274

Instructions for the Testing and Application of Gibberellins in Cultured Plants, by M. Kh. Chaylakhyan, 57 pp.
 RUSSIAN, bk, Gibberelliny Rasteniy: Instruktsiya po Ispytaniyu i Primeneniyu Gibberellinov na Kulturnykh Rasteniyakh, Moscow, 1963, pp 1-64.
 JPRS 26801

Industrial Health in Handling Thorium, by N. Yu. Tarnsende.
 RUSSIAN, bk, Gigiene Truda pri Rabote s Thorium, Moscow, 1963, 88 pp.
 *AEC

Detection of Pathogenic Bacteria in a Endogenous Medium, by V. D. Kucherenko, 31 pp.
 RUSSIAN, bk, Indikatsiya Patogennykh Mikrobov vo Vneshney Sredy, Moscow, 1964. pp 3-56; 140.
 JPRS 26890

Individual Means of Protection Against Chemicals and Radiation, by V. A. Alkhazov, A. P. Tkachev, 51 pp.
 RUSSIAN, bk, Individual'nyye Sredstva Protsvokhimi-cheskoy i Protivoradiatsionnoy Zashchity, Moscow, 1964.
 JPRS 26574

Reactivity in Space Medicine: Paper Presented at the Fifteenth International Astronautical Congress Held in Warsaw on 7-12 September 1964, by V. V. Parin, P. V. Vasil'yev, et al, 14 pp.
 RUSSIAN, rpt, K Problemam Reaktivnosti v Kosmicheskoy Meditsine, Warsaw, 7-12 Sep 1964. 9225819
 NASA TT F-277

Oxygen Insufficiency, 769 pp.
 RUSSIAN, bk, Kislorodnaya Nedostatochnost', Kiev, 1963, pp 3-610. 9695416
 FTD-TT-64-878

How to Protect Oneself From Poisoning by Toxic Chemicals, by L. I. Medved', 20 pp.
 RUSSIAN, bk, Kniga o Zdorov'e Truzhenikov Sel's. Moscow, 1963, pp 74-95.
 JPRS 26589

From Animals to Man, by P. S. Gromykhin, 13 pp.
 RUSSIAN, bk, Kniga o Zdorov'e Truzhenikov Sel's. Moscow, 1963, pp 162-174.
 JPRS 26589

Molecular Genetics and the Effects of Radiation on Heredity, by N. P. Lubnin, 431 pp.
 RUSSIAN, bk, Molekulyarnaya Genetika i Deystviye Izlucheniya na Nasledstvennost', Moscow, 1963, pp 3-239. 9695409
 FTD-TT-63-1214

Emergency Treatment for Cases of Poisoning, by A. I. Germanov, 14 pp.
 RUSSIAN, bk, Neotizozhnaya Terapevтическая Pomoshch', Kuybyshev, 1964, pp 204-220.
 JPRS 26903

Scientific
Biological & Medical Sciences (Contd)

Acute Renal Insufficiency, by A. Ya. Pytel', S. D. Goligorskij, 37 pp.
 RUSSIAN, bk, Osnovy Pochechnaya Nedostatochnost', Kishinev, 1963, pp 206-241.
 JPRS 26578

Obesity, by M. N. Yegorov, L. M. Levitskiy, 47 pp.
 RUSSIAN, bk, Ozhdreniye, Moscow, 1964.
 JPRS 26681

Animal Memory: Its Characteristic and Origin, by I. S. Beritashvili.
 RUSSIAN, rpt, Paper Presented at the Plenary Session of the Tenth Congress of the All-Union Physiological Society, Yerevan, 22-28 October 1964, 6 pp.
 *NASA TT F-304

Space Physiology: Certain Results and Perspectives of Experimental Investigations, by O. G. Gazonko, V. V. Parin, et al.
 RUSSIAN, rpt, Paper Presented at the Plenary Session of the Tenth Congress of the All-Union Physiological Society, Yerevan, 22-28 October 1964, 16 pp.
 *NASA TT F-305

Conditioned Reflex and Present-Day Neurophysiology, by E. A. Asratyan.
 RUSSIAN, rpt, Paper Presented at the Plenary Session of the Tenth Congress of the All-Union Physiological Society, Yerevan, 22-28 October 1964, 5 pp.
 *NASA TT F-306

Investigation of the Neurophysiological Mechanics in the Process of Distinguishing an External Signal, by G. V. Gershund.
 RUSSIAN, rpt, Paper Presented at the Plenary Session of the Tenth Congress of the All-Union Physiological Society, Yerevan, 22-28 October 1964, 5 pp.
 *NASA TT F-307

Energy Supply for Physiological Functions, by S. Ye. Soverin.
 RUSSIAN, rpt, Paper Presented at the Plenary Session of the Tenth Congress of the All-Union Physiological Society, Yerevan, 22-28 October 1964, 6 pp.
 *NASA TT F-308

Radiation Disease in Fish, by D. D. Romashov, V. N. Belyayeva, et al.
 RUSSIAN, bk, Radiatsionnaya Genetika, 1964, pp 247-266.
 *AEC

Changes of the Epithelium of the Gallbladder in Conditions of Regeneration, by N. I. Grigoryev.
 RUSSIAN, rpt, Regeneratsiya Zpitelija Zhelechnogo Puzvija Razlichnykh Pozvonochnykh, 1958, pp 448-465.
 *AEC

Modern Psychotropic Drugs and Their Use in Treating Schizophrenia, by G. Ya. Avrutskiy, 16 pp.
 RUSSIAN, bk, Sovremennyye Psichotropnyye Sredstva i ikh Primeneniye v Lechenii Schizofrenii, Moscow, 1964, pp 3-7; 8-18; 303, 304.
 JPRS 26957

Transactions of the Institute of Genetics, 743 pp.
 RUSSIAN, bk, Trudy Instituta Genetiki, No 29, 1962, pp 3-471. 9695361
 FTD-TT-63-662

Advances in Biological Chemistry, 495 pp.
 RUSSIAN, bk, Uspehi Biologicheskoy Khimii, Moscow, 1962, pp 3-201. 9695447
 FTD-TT-63-1083

Water Treatment and Water Behaviour in Nuclear Power Plants, by A. A. Kot.
 RUSSIAN, bk, Vodopodgotovka i Vodnyi Rezhim Atomnykh Elektrostantsii, Moscow, 1964, 345 pp.
 *AEC

Scientific
Biological & Medical Sciences (Contd)

Poisonous Bitos, Treatment and Protection, by Mekhti Nadzhaf Sultanov, 42 pp. RUSSIAN, bk, Yadovityye Ukusy, Lecheniye i Profilaktika, Moscow, 1964, pp 1-56. JPRS 26707

Contamination and Self-Purification of the River Oka, by V. I. Zhadin, 80 pp. RUSSIAN, bk, Zagryazneniye i Samoochishcheniye Reki Oki, Moscow-Leningrad, 1964, pp 226-288. JPRS 26688

Protection of the Population Against Modern Means of Destruction, 207 pp. RUSSIAN, bk, Zashchita Naseleniya ot Sovremennykh Sredstv Porazheniya, Moscow, 1963, ACSI 1-5437 ID 2204030664

The Problem of Cancer In Light of Embryological Data, by M. P. Shabab-Ivanova, 7 pp. RUSSIAN, per, Arkhiv Patologii, Vol XXI, No 10, 1959, pp 72-74, 9695446 FTD-TT-63-1177

A Case of Berylliosis of the Lungs, by A. I. Kanevskaya, 7 pp. RUSSIAN, per, Arkhiv Patologii, Vol XXIV, No 4, 1962, pp 73-77. JPRS 27031

The Regular Features of Morphine Accumulation in the Opium Poppy, by A. A. Zaitseva. RUSSIAN, per, Botan Zhur, Vol XLIV, 1959, pp 1567-1577. *AEC

On the Effect of Anesthesia on the Reaction of Hypophyso-Adrenal System to Stress, by E. R. Bagramyan, 8 pp. RUSSIAN, per, Farmakol i Toksikol, Vol XXVII, No 3, 1964, pp 335-338. JPRS 26645

Forms of Adrenal Morphophysiological Reorganization From the Effect of Strong Stressor and High Acth Doses, by V. I. Prilutskiy, 7 pp. RUSSIAN, per, Farmakol i Toksikol, Vol XXVIII, No 3, 1964, pp 339-342. JPRS 26645

Pharmacological Characteristics of Tetramethylcystamine, by Yu. E. Strel'nikov, 7 pp. RUSSIAN, per, Farmakol i Toksikol, Vol XXVIII, No 3, 1964, pp 343-349. JPRS 26645

Distribution and Removal of B-Mercapto-Propylamine and Tagged S35 From the Organism of Mice, by G. V. Kalistratov, Ye. F. Romantsev, 6 pp. RUSSIAN, per, Farmakol i Toksikol, Vol XXVIII, No 3, 1964, pp 364-367. JPRS 26645

On the Problem of the Clinical Picture of Pneumosclerosis of Mixed Etiology, Berylliosis and Silicosis, by E. P. Krapukhina, T. A. Kochetkova, et al, 6 pp. RUSSIAN, per, Gig Trud i Professional Zabol, Vol VII, No 1, 1963, pp 41-44. JPRS 27031

Scientific
Biological & Medical Sciences (Contd)

Distribution of Radioactive Calcium and Its Excretion From the Bodies of Healthy and Lead-Poisoned Animals, by K. K. Makashev, L. V. Kazachenko, 7 pp. RUSSIAN, per, Iz Ak Nauk Kazakh SSR, Seriya Med Nauk, No 1, 1964, pp 50-55. JPRS 26888

Physiological Reactions of Animals During Flights on the Third, Fourth, and Fifth Spaceship-Satellites, by O. G. Gazeiko, I. I. Kas'yan, 16 pp. RUSSIAN, per, Iz Ak Nauk SSSR, Ser Biol, No 4, JPL, Aug 1964, pp 497-510. JPRS 26994

Electron-Microscopic Study of Nuclear-Plasma Relationships in Plant Ovals, by N. B. Khristolyubova, A. I. Dyatlova, 8 pp. RUSSIAN, per, Iz Sibir Otdel Ak Nauk SSR, No 4, Biol Medit Nauk, No 1, 1963, pp 23-27. JPRS 26692

Variation in Frequency of Injuries to Chromosomes Caused by Radiation in the Initial Radicle of Wheat Plant, by P. K. Shkvarnikov, A. M. Livonskai, 9 pp. RUSSIAN, per, Iz Sibir Otdel Ak Nauk SSSR, No 4, Biol Medit Nauk, No 1, 1963, pp 28-35. JPRS 26692

Effect of Ionizing Radiation and Chemical Compounds on Growth Processes and Hereditary Variability in the Potato, by N. D. Tarasenko, 7 pp. RUSSIAN, per, Iz Sibir Otdel Ak Nauk SSSR, No 4, Biol Medit Nauk, No 1, 1963, pp 33-40. JPRS 26692

On Comparative Mobility of P32 and Ca45 in a Plant, by G. V. Barinov, 8 pp. RUSSIAN, per, Iz Sibir Otdel Ak Nauk SSSR, No 4, Biol Medit Nauk, No 1, 1963, pp 53-61. JPRS 26692

Use of Muscle Relaxants in Heart Operations, by A. S. Rovnov, V. A. Kovanev, et al, 8 pp. RUSSIAN, per, Khirurgiya, Vol XL, No 7, 1964, pp 18-23. JPRS 26961

Use of New Muscle Relaxant in Anesthesiology, by T. L. Nadzharyan, 5 pp. RUSSIAN, per, Khirurgiya, Vol XL, No 7, 1964, pp 44-49. JPRS 26961

Transplantation of Vessels in Cases of Obliterating Atherosclerosis, by I. Podlaga, I. Zavrzhel, et al, 9 pp. RUSSIAN, per, Khirurg, Vol XL, No 8, 1964, pp 111-115. JPRS 26646

The Technique of Preserving Kiel Bone Preparation, by K. Gere, 5 pp. RUSSIAN, per, Khirurg, Vol XL, No 8, 1964, pp 115-119. JPRS 26646

Plastics in Modern Medicine, by V. P. Perepelkin, 5 pp. RUSSIAN, per, Medit Prom SSSR, Vol XVIII, No 5, 1964, pp 7-10. JPRS 26580

Materials on the Toxicology of Radioactive Substances, by V. F. Zhuravlev, I. K. Petrovich, 8 pp. RUSSIAN, per, Medit Radiologiya, Vol VI, No 12, 1963, pp 81-83, 9695081 FTD-TT-64-599

Scientific
Biological & Medical Sciences (Contd)

On Polarographic Oxygen Assay in the Culture Fluid of Microorganisms, by L. A. Samokhvalov, M. S. Shulman. RUSSIAN, per, Mikrobiol, Vol XXXII, No 5, 1963. FSTC SI-4-56 666

Constancy of Weight is a Certain Indication of Health, by K. Petrovskiy. RUSSIAN, per, Nauka i Zhizn', No 11, 1963, pp 51-53. FSTC SI-4-56 665

The Nature of the Wedensky Inhibition, by Ye. K. Zhukov, 9 pp. RUSSIAN, per, Nervnaya Sistema, No 4, 1963, pp 3-8. JPRS 26978

The Mechanism of Wedensky Inhibition, by T. K. Iosiliani, T. N. Oniani, 6 pp. RUSSIAN, per, Nervnaya Sistema, No 4, 1963, pp 9-13. JPRS 26978

Use of Electromyography in Practical Medicine, by Yu. M. Uflyand, 5 pp. RUSSIAN, per, Nervnaya Sistema, No 4, 1963, pp 146-148. JPRS 26978

Alternating Lability and Assimilation of Rhythm in Sports Skill, by E. B. Kossovskaya, 5 pp. RUSSIAN, per, Nervnaya Sistema, No 4, 1963, pp 179-182. JPRS 26978

Electromyographic Response of Muscle Antagonist Activity in Various Degrees of Stretching, by Yu. Z. Zakhar'yants, 5 pp. RUSSIAN, per, Nervnaya Sistema, No 4, 1963, pp 183-186. JPRS 26978

Lyophilized Tendon Homotransplantation in Flexor Digitorum Profundus Lesion at the Carpal Articulation Level, by P. P. Kovalenko, N. P. Dem'chev, 5 pp. RUSSIAN, per, Ortopedika Travmatolog i Prostezirovaniye, Vol XXV, No 8, 1964, pp 53-55. JPRS 26958

The Effect of Sensitization on the Reflexes Brought From the Proprioceptors of the Skeletal Muscles, by G. A. Yerzina, N. I. Pirogova, 10 pp. RUSSIAN, per, Patol Fiziol i Eksperim Terapiya, Vol VIII, No 3, May, Jun 1964, pp 35-40. JPRS 26694

Histamine-Histaminase System During Intoxication Caused by *E. Coli* Endotoxin, by K. A. Korovnikov, 7 pp. RUSSIAN, per, Patol Fiziol i Eksperim Terapiya, Vol VIII, No 3, May, Jun 1964, pp 41-44. JPRS 26694

The Possible Mechanism Underlying Recurrence of Local Inflammation Processes, by L. S. Salyamov, N. V. Lazarev, et al, 8 pp. RUSSIAN, per, Patol Fiziol i Eksperim Terapiya, Vol VIII, No 3, May, Jun 1964, pp 44-48. JPRS 26694

The Effect of Burn on the Regeneration of Bone Tissue, by B. Ye. Movshev, N. A. Fedorov, 6 pp. RUSSIAN, per, Patol Fiziol i Eksperim Terapiya, Vol VIII, No 3, May, Jun 1964, pp 57-60. JPRS 26694

Scientific
Biological & Medical Sciences (Contd)

On the Pathogenesis of Bile-Induced Peritonitis and Cholecystitis Caused by the Fermentative Action of Pancreatic Juice, by V. B. Troitskaya, T. V. Shaak, 6 pp.

RUSSIAN, per, Patol Fiziol i Eksperim Terapiya, Vol VIII, No 3, May, Jun 1964, pp 60-63. JPRS 26694

The Origin and Evolution of Metabolism, by A. I. Oparin, 7 pp. RUSSIAN, per, Priroda, No 6, 1964, pp 29-32. JPRS 26991

Classification and Systematization of Science, by D. M. Troshin, 14 pp. RUSSIAN, per, Priroda, No 6, 1964, pp 56-64. JPRS 26991

Hydraulic Means of Locomotion in Animals, by L. A. Zenkevich, 11 pp. RUSSIAN, per, Priroda, No 6, 1964, pp 89-95. JPRS 26991

Proteins of the Nervous System, by A. V. Palladin, 15 pp. RUSSIAN, per, Priroda, No 7, 1964, pp 24-31. JPRS 26846

On the Clinical, Diagnostic and Therapeutic Aspects of Berryliosis, by K. P. Molokanov, A. L. Morozov, et al, 11 pp. RUSSIAN, per, Sovet Medit, Vol XXV, No 4, 1961, pp 22-30. JPRS 27031

Medical Service of Intracontinental Expeditions in the Antarctic, by N. P. Deryapa, 7 pp. RUSSIAN, per, Sovet Zdravookh, No 7, 1964, pp 50-54. JPRS 26699

The Influence of Industrial and Seasonal Factors on the Sick Rate of the Population Under Subtropical Conditions in Western Georgia, by Sh. V. Dzhagamadze, 7 pp.

RUSSIAN, per, Sovet Zdravookh, No 7, 1964, pp 58-61. JPRS 26699

The Development of Gerontology and the Problems of Public Health, by D. F. Chebotarev, 6 pp. RUSSIAN, per, Sovet Zdravookh, No 8, 1964, pp 3-6. JPRS 26693

The Hygienic Indoctrination of the Population at the Present Stage, by L. S. Bogolepov, 7 pp. RUSSIAN, per, Sovet Zdravookh, No 8, 1964, pp 7-11. JPRS 26695

Certain Problems of Old Age and Old Persons, by A. N. Rubakin, 7 pp. RUSSIAN, per, Sovet Zdravookh, No 8, 1964, pp 12-16. JPRS 26695

Health Characteristics of Extremely Old Persons in Certain Regions of the Soviet Union, by N. N. Sachuk, 9 pp. RUSSIAN, per, Sovet Zdravookh, No 8, 1964, pp 16-22. JPRS 26695

Certain Data From the Research on Long-Lived Persons in Grodzenskaya and Gomel'skaya Oblasts of Belorussian, by B. L. Oliker, 6 pp. RUSSIAN, per, Sovet Zdravookh, No 8, 1964, pp 23-26. JPRS 26695

The Experience in Organizing a Geriatric Service in Kalininskaya Oblast, by N. S. Starodub, 5 pp. RUSSIAN, per, Sovet Zdravookh, No 8, 1964, pp 28-31. JPRS 26695

Scientific
Biological & Medical Sciences (Contd)

Certain Patterns in the Relationship Between Soviet Public Health and Military Medicine, by A. S. Georgiyevskiy, 6 pp. RUSSIAN, per, Sovet Zdravookh, No 8, 1964, pp 62-66. JPRS 26695

Physical Culture and Thorough Development of Personality, by G. I. Kukushkin, 14 pp. RUSSIAN, per, Teoriya i Praktika Fiz Kul'tury, No 6, 1964, pp 1-9. JPRS 26955

Harmonious Development of Children Guarantees Health and Productive Activity of Future Builders of Communism, by S. Ya. Chilkin, 8 pp. RUSSIAN, per, Teoriya i Praktika Fiz Kul'tury, No 6, 1964, pp 9-14. JPRS 26955

Effect of Various Stresses on the Reactions of Young Athletes, by O. R. Nemirovich-Danchenko, 10 pp. RUSSIAN, per, Teoriya i Praktika Fiz Kul'tury, No 6, 1964, pp 45-49. JPRS 26955

Experience of Correlation Analysis of Hemodynamic Indices in Young Athletes Under Severe Stresses, by T. E. Karu, 11 pp. RUSSIAN, per, Teoriya i Praktika Fiz Kul'tury, No 6, 1964, pp 57-61. JPRS 26955

Results of Plenum of Scientific-Methodological Athletic Council, by Ye. Sizy, 6 pp. RUSSIAN, per, Teoriya i Praktika Fiz Kul'tury, No 6, 1964, pp 77-79. JPRS 26602

The Use of Glycerinized Crystal Violet Vaccine Against Hog Cholera on Affected Farms, by G. G. Bedenashvili. RUSSIAN, per, Veterinariya, Vol XL, No 10, 1963, p 31. 9225045 USDA Tr V-1940

Eradication of Foot-and-Mouth Disease in Winter, by M. B. Ashepa, A. T. Bannov. RUSSIAN, per, Veterinariya, No 5, 1964, pp 38, 39. 9225046 USDA Tr V-1941

Malignant Course of Foot-and-Mouth Disease, by P. S. Lazarev, A. I. Fedorov, et al. RUSSIAN, per, Veterinariya, Vol XLI, No 5, 1964, pp 39-42. 9225040 USDA Tr V-1943

Tasks Directed to Eradication of Brucellosis in Animals, by V. I. Ivanova. RUSSIAN, per, Veterinariya, Vol XLI, No 5, 1964, pp 43-46. 9225033 USDA Tr V-1948

Appeal of Members at the Conference of Veterinary and Medical Specialists in the Kursk Oblast. RUSSIAN, per, Veterinariya, Vol XLI, No 5, 1964, p 73. 9225062 USDA Tr V-1949

Ditilin for Narcotizing of Animals, by B. L. Mkrtchyan. RUSSIAN, per, Veterinariya, Vol XLI, No 5, 1964, p 88. 9225034 USDA Tr V-1950

Cases of Animal Poisoning. RUSSIAN, per, Veterinariya, Vol XLI, No 5, 1964, pp 90-92. 9225055 USDA Tr V-1951

Scientific
Biological & Medical Sciences (Contd)

Organization and Methodology of Disinfection on Farms, by K. P. Andreyev. RUSSIAN, per, Veterinariya, Vol XLI, No 5, 1964, pp 94-97. 9225041 USDA Tr V-1936

The 22nd Congress of the CPSU and the Tasks of Scientific Research Work in the Field of Philosophy, by P. N. Fedoseyev, 24 pp. RUSSIAN, per, Voprosy Filosofii, No 3, 1962, pp 14-30. JPRS 26865

The 22nd Congress of the CPSU and Tasks of Scientific Work in the Field of Marxist-Leninist Philosophy, by M. B. Mitin, 23 pp. RUSSIAN, per, Voprosy Filosofii, No 4, 1962, pp 129-144. JPRS 26863

Changes in the Content of Biologically Active Substances in Rats Under the Action of Radial Accelerations, by I. M. Khazen, I. L. Vaysfeld, 10 pp. RUSSIAN, per, Voprosy Medit Khimii, Vol VIII, No 5, 1962, pp 493-497. 9695037 FTD-TT-64-202

The Effectiveness of Specific Gamma-Globulin's Prophylactic Action for Vaccine-Induced Keratitis in Irradiated and Non-Irradiated Rabbits, by L. A. Kamalyan, Zh. Ts. Vartevanyan, 7 pp. RUSSIAN, per, Voprosy Radiobiolog. Sbornik Trudov, Vol III, IV, 1963, pp 53-57. JPRS 26956

A Study of the Properties of Vaccine Virus in X-Irradiated and Non-Irradiated Tissue Culture, by L. A. Kamalyan, Zh. Ts. Vartevanyan, et al, 7 pp. RUSSIAN, per, Voprosy Radiobiolog. Sbornik Trudov, Vol III, IV, 1963, pp 59-64. JPRS 26956

Study of X-Irradiated and Vaccine-Virus Inoculated Tissue Culture by the Luminescent Microscopy Method, by L. A. Kamalyan, R. A. Ter-Pogosyan, 7 pp. RUSSIAN, per, Voprosy Radiobiolog. Sbornik Trudov, Vol III, IV, 1963, pp 65-69. JPRS 26956

Study of T1 Phage Reproduction in X-Irradiated E. coli B. Celsis, by R. A. Ter-Pogosyan, A. T. Ter-Avetisyan, 8 pp. RUSSIAN, per, Voprosy Radiobiolog. Sbornik Trudov, Vol III, IV, 1963, pp 71-76. JPRS 26956

A Comparative Study of Vaccine Virus Reproduction in X-Irradiated and Non-Irradiated Tissue Culture, by L. A. Kamalyan, R. A. Ter-Pogosyan, et al, 7 pp. RUSSIAN, per, Voprosy Radiobiolog. Sbornik Trudov, Vol III, IV, 1963, pp 77-82. JPRS 26956

Effect of Ionizing Radiation on the Immunological Reactivity of the Reticulo-Endothelial System RES, by E. D. Stepanyan, 17 pp. RUSSIAN, per, Voprosy Radiobiolog. Sbornik Trudov, Vol III, IV, 1963, pp 83-94. JPRS 26956

Effect of Radiation Dose Rate on the Phagocytic and Antibody-Forming Functions of the Reticulo-Endothelial System, by E. D. Stepanyan, 7 pp. RUSSIAN, per, Voprosy Radiobiolog. Sbornik Trudov, Vol III, IV, 1963, pp 95-100. JPRS 26956

Scientific
Biological & Medical Sciences (Contd)

The Significance of the Irradiation Site for the Effect of Ionizing Radiation on the Phagocytic and Antibody-Forming Functions of the Reticulo-Endothelial System, by E. D. Stepanyan, 11 pp. RUSSIAN, per, Voprosy Radiobiolog. Sbornik Trudov, Vol III, IV, 1963, pp 101-109. JPRS 26956

Beta-Radiactivity of Certain Samples of Animal Bones, Grass and Soil, by V. O. Ovanesyan, M. L. Arutyunyan, et al, 6 pp. RUSSIAN, per, Voprosy Radiobiolog. Sbornik Trudov, Vol III, IV, 1963, pp 197-200. JPRS 26956

Skeletal Radioactivity of Newborn Children, by M. L. Arutyunyan, V. A. Akopova, et al, 6 pp. RUSSIAN, per, Voprosy Radiobiolog. Sbornik Trudov, Vol III, IV, 1963, pp 201-204. JPRS 26956

Immunobiological Changes in Irradiated Guinea Pigs With Tularemia, by S. A. Papoyan, V. N. Zil'fyan, et al, 15 pp. RUSSIAN, per, Voprosy Radiobiolog. Sbornik Trudov, Vol III, IV, 1963, pp 205-215. JPRS 26956

A Study of the Initial Phase of the Interaction Between Vaccinia Virus and Irradiated Tissue Culture Cells, by S. A. Papoyan, R. A. Ter-Pogosyan, et al, 10 pp. RUSSIAN, per, Voprosy Radiobiolog. Sbornik Trudov, Vol III, IV, 1963, pp 275-281. JPRS 26956

Some Data on the Effect of Colamine on the Development of Vaccinia Virus and the Formation of Smallpox Immunity, by G. V. Kamalyan, L. A. Kamalyan, et al, 7 pp. RUSSIAN, per, Voprosy Radiobiolog. Sbornik Trudov, Vol III, IV, 1963, pp 283-287. JPRS 26956

Historical Sketch of Soviet Military Epidemiology During World War II, The Great Patriotic War, by R. A. Tararin. RUSSIAN, per, Zhur Mikrobiol. Epidemiol i Immunobiol, Vol XLI, No 5, 1964, pp 149-152. 9225043 USDA Tr V-1938

The History of Anthrax Research in Russia, by I. V. Rubtsov. RUSSIAN, per, Zhur Mikrobiol. Epidemiol i Immunobiol, Vol XLI, No 5, 1964, pp 152-154. 9225044 USDA Tr V-1939

Current Problems of Epidemiology, Concerning the XIV All-Union Congress of Epidemiologists Microbiologists and Infectiologists. RUSSIAN, per, Zhur Mikrobiol. Epidemiol i Immunobiol, Vol XLI, No 6, 1964, pp 3-7. 9225051 USDA Tr V-1946

Improvement of Organization of Tularemia Mass Vaccinations, by V. G. Pilipenko. RUSSIAN, per, Zhur Mikrobiol. Epidemiol i Immunobiol, Vol XLI, No 6, 1964, pp 29-34. 9225052 USDA Tr V-1947

Survey of the Content of Dissertations on Virology, Microbiology and Pathology, by S. V. Andreyev, 17 pp. RUSSIAN, per, Zhur Mikrobiol Epidemiol i Immunobiol, No 6, 1964, pp 60-67. JPRS 26612

Scientific
Biological & Medical Sciences (Contd)

Classification of Brucella and Methods for Their Differentiation, by P. A. Vershilova, N. N. Ostrovskaya. RUSSIAN, per, Zhur Mikrobiol. Epidemiol i Immunobiol, Vol XLI, No 7, 1964, pp 5-10. 9225058 USDA Tr V-1954

The Effect of Preliminary Toxoid Administration on the Resistance of Mice to Botulin, by L. N. Zhuk. RUSSIAN, per, Zhur Mikrobiol. Epidemiol i Immunobiol, Vol XLI, No 7, 1964, pp 39-42. 9225059 USDA Tr V-1955

Characteristics of Serological Methods of Botulin Detection, by T. I. Bulyatova. RUSSIAN, per, Zhur Mikrobiol. Epidemiol i Immunobiol, Vol XLI, No 7, 1964, pp 79-84. 9225060 USDA Tr V-1956

Immunological Reactivity of Radiochimera, by D. R. Kauden, 8 pp. RUSSIAN, per, Zhur Mikrobiol Epidemiol i Immunobiol, Vol XLI, No 7, 1964, pp 117-123. JPRS 26711

Electrophysiological Study of the Action of Piridrol on the Central Nervous System, by R. Yu. Il'yuchenok, Yu. F. Pastukhov, 15 pp. RUSSIAN, per, Zhur Nevropatol i Psichh Imen S. S. Korsakova, Vol XLI, No 12, 1962, pp 1821-1831. JPRS 26579

The Function of Cell Nucleus and Cytoplasm From the Standpoint of Embryological Development, by Li-ting Li-chou, 14 pp. CHINESE, per, Ko-hsueh T'ung-pao, No 8, 1964, pp 667, 674. JPRS 26650

New Data on the Reflex Activity of Spinal Cords From the Viewpoint of Muscular Proprioception. Clinical Applications. Findings on a Normal Person, by V. Skorpi, B. Drechsler, 13 pp. CZECH, per, Ceskoslovenska Neurologie, Vol XXVI, No 3, 1963, pp 143-151. 9694967 FTD-TT-64-267

Simple Analyzer Card for Registration of EEG Findings, by J. Klapetek, 8 pp. CZECH, per, Ceskoslovenska Neurologie, Vol XXVI, No 3, 1963, pp 159-173. 9694967 FTD-TT-64-267

Effect of Radiation on Human EEG, by Z. Klimkova-Deutschova, 10 pp. CZECH, per, Ceskoslovenska Neurologie, Vol XXVI, No 3, 1963, pp 184-191. 9694967 FTD-TT-64-267

Disturbances in Purkinje Falae Images in Neuroses and Certain Pseudoneuroses Investigating by the Optoinduographic Method, by J. Vyskocil, L. Vojtanova, 14 pp. CZECH, per, Ceskoslovenska Neurologie, Vol XXVI, No 4, 1963, pp 271-279. 9695443 FTD-TT-64-52

Psychotherapy of Sexual Neuroses, by K. Nedoma, 9 pp. CZECH, per, Ceskoslovenska Psychiatrie, Vol LIX, No 1, 1963, pp 28-32. 9695448 FTD-TT-64-60

From the History of Psychiatry, by V. Vondracek, 5 pp. CZECH, per, Ceskoslovenska Psychiatrie, Vol LIX, No 1, 1963, pp 59-60. 9695449 FTD-TT-64-63

Scientific
Biological & Medical Sciences (Contd)

Biological and Social Problems in Human Psychology, by Milan Moravek, 4 pp. CZECH, per, Ceskoslovenska Psychiatrie, Vol LIX, No 1, 1963, pp 64-66. 9695431 FTD-TT-64-64

Directive Revising Annexes 1 and 3 of Directives Fixing the Basic Standards of Health Protection and Directive on the Free Entry to Qualified Posts in the Nuclear Field, 33 pp. FRENCH, per, Journal Officiel des Communautés Européennes, Vol V, No 57, 1962, pp 1633-1652. 9223309 AEC-NP-Tr-1161

Human Biochemical Genetics, by H. G. Ilers, 30 pp. FRENCH, per, Revue des Questions Scientifiques, Vol XXIV, 20 Jul 1963, pp 343-366. JPRS 26577

The Ash Picture of Animal Tissue and Organs, by Erich Hintzache. GERMAN, bk, Das Aschenbild Tierischer Gewebe und Organe, 1956, pp 3-28; 33-43; 103-109. *AEC

Aviation Medicine, by K. Wrzesniowski, et al. GERMAN, bk, Medycyna Lotnicza. Zbiór Prac Wojskowego, Warsaw, 1963, 136 pp. *NASA TT F-294

Biology of the Parasitic Wasp: Habrobracon Brevicornis Wesmael Braconidae, by Albrecht Hase, 133 pp. GERMAN, per, Arbeiten aus der Biologischen Reichsanstalt fuer Land- und Forstwirtschaft, Vol XI, 1922, pp 95-168. 9223798 AEC-ORNL-Tr-303

Occupational Diseases of Photoprint Operators, by Halina Gertler, Heinz Laubstein, 11 pp. GERMAN, per, Berufsdermatosen, Vol XI, No 3, 1963, pp 125-140. 9223780 AEC-SC-T-64-1625

The Transversal Auxin Transport and the Geotropism of the Avena Coleoptile: Effect of Decapitation, by Erich Nueremberg. GERMAN, per, Flora, Vol CXXVIII, 1933, pp 99-110. *AEC

Transversal Conduction of the Growth Substance in the Avena Coleoptile Caused by Unilateral Light Effect, by P. Boysen Jensen. GERMAN, per, Planta, Vol XIX, 1932, pp 335-344. *AEC

Studies of the Transversal and Longitudinal Transport of the Growth Substance in Plant Organisms, by Kurt Koch. GERMAN, per, Planta, Vol XXII, 1934, pp 190-220. *AEC

Radiation Injuries to the Right Hand as a Result of an Operational Accident, by Rudolf Grabiger. GERMAN, per, Straillentherapie, Vol CXXIII, 1964, pp 132-138. *AEC

Pituitary Gland and Iron Metabolism: Uptake of Radio-Iron in Bone Marrow, Blood and in Various Organs of Hypophysectomized Rats, by M. E. Austoni, D. Zillotto, et al. GERMAN, per, Wiener Zeitschrift fuer Innere Medizin, Vol XXXVII, No 4, 1956, pp 137-147. *AEC

Scientific
Biological & Medical Sciences (Contd)

State Support in Combating Tuberculosis in Cattle, by Pal Losonczi, 11 pp. HUNGARIAN, per, Mezogazdasagi Ert-sito, 31 Jul 1964, pp 436-441. JPRS 26799

Program of the General Assembly of the Forensic Medicine Section of Pathologists, Anatomists of the Medical and Public Health Workers Union, 17 pp. HUNGARIAN, per, Orvosi Hetlap, 30 Aug 1964, pp 1674-1679. JPRS 26860

Discounts and Benefits for Ridding Cattle of Tuberculosis, 5 pp. HUNGARIAN, per, Termeloszovetkezets Tanacsadoja, No 36, 2 Sep 1964, pp 1, 2. JPRS 26799

Intensification of the Radiological Image, by G. Gregorio. ITALIAN, per, La Radiologia Medica, Vol XLIX, 1963, pp 640-649. *AEC

Protein Nucleic Acid Enzyme, 13 pp. JAPANESE, per, Tanipakushitai Kakusan Kose, Vol VIII, No 1, 1963, pp 20-25. ACSI I-4369 ID 2204008764 528th MI Op

By-Laws of the Veterinarian Service of the MPR, 7 pp. MONGOLIAN, np, Sotsialist Hodoo Ajahui, 8 Aug 1964, p 4. JPRS 26544

Protein From Petroleum, by A. D. Banciu, 8 pp. RUMANIAN, per, Stiinta si Tehnica, No 7, 1963, pp 24, 25. ACSI I-3530 ID 2246317

The Research Institute for Animal Husbandry, by M. Stefanescu, 3 pp. RUMANIAN, per, Vitala Economica, No 33, 14 Aug 1964, p 8. JPRS 26704

The Cytology of Allium Cepa X Fistulosum, by A. Levan, 26 pp. SWEDISH, per, Hereditas, Vol XXI, 1935, 1936, pp 195-214. 9223783 AEC-NP-Tr-1185

Electrical Activity of the Neurons of the Visual Cortex of the Rabbit, by R. R. Velikaya, 12 pp. UKRAINIAN, per, Fiziol Zhur, No 4, Jul, Aug 1964, pp 450-458. JPRS 26990

Senescence and Adaptation of the Organism, by V. V. Frol'kis, 10 pp. UKRAINIAN, per, Fiziol Zhur, No 4, Jul, Aug 1964, pp 460-467. JPRS 26990

The Problem of the Interception of the Tongue, by V. O. Samoylov, 9 pp. UKRAINIAN, per, Fiziol Zhur, No 4, Jul, Aug 1964, pp 469-474. JPRS 26990

Scientific
Biological & Medical Sciences (Contd)

Effect of an Ultra-High Frequency Field and Convective Heat on the Estrual Cycle in Mice, by S. P. Gorodetskaya, 8 pp.
UKRAINIAN, per, Fiziol Zhur, No 4, Jul, Aug 1964, pp 494-499.
JPRS 26990

The Mechanism of the Biological Action of Ultrasonic Vibrations, by M. I. Gurevich, S. A. Bershteyn, 13 pp.
UKRAINIAN, per, Fiziol Zhur, No 4, Jul, Aug 1964, pp 508-514.
JPRS 26990

Relations Between Peripheral Motor Chronaxy and the Mobility of the Basic Nerve Processes in the Human Cerebral Cortex, by N. V. Kol'tchenko, 6 pp.
UKRAINIAN, per, Fiziol Zhur, No 4, Jul, Aug 1964, pp 518-521.
JPRS 26990

Effect on the Organism of Partial Weightlessness Due to Submersion in Water, by V. P. Dudarev, P. V. Beloshitskiy, 5 pp.
UKRAINIAN, per, Fiziol Zhur, No 4, Jul, Aug 1964, pp 554-557.
JPRS 26990

Tasks Concerned With the Development of Antibiotic Production, by A. V. Savitskiy, S. I. Maymund, 6 pp.
UKRAINIAN, per, Medit Prom SSSR, No 8, 1964, pp 7-11.
JPRS 27023

Accumulation of Alkaloids and Oil in Cornicles of Ergot of Ergotamine Strain, by A. N. Ban'kovskaya, N. L. Ostrovskiy, et al, 5 pp.
UKRAINIAN, per, Medit Prom SSSR, No 8, 1964, pp 18-21.
JPRS 27023

Formation of Acetyl Phosphate in Liver Homogenates of Animals, by M. F. Gulyi, T. M. Pechonova, et al.
UKRAINIAN, per, Ukrain Biokhim Zhur, Vol XXXIV, 1962, pp 846-852.
*AEC

The Chemical Composition of the Urea-Extractable Components of the Plague Virus EV, by L. S. Olenicheva, 7 pp.
UKRAINIAN, per, Ukrayins' Biokhim Zhur, Vol XXXVI, No 4, 1964, pp 492-497.
JPRS 26858

Chemistry

The Effectiveness of the Use of Radioactive Isotopes in the National Economy, by G. F. Mikheyev, V. I. Postnikov, 109 pp.
RUSSIAN, bk, Efektivnost' Primeneniya Radioaktivnykh Izotopov v Narodnom Khozyaistve, Moscow, 1962, 103 pp. 9225777
AEC-Tr-5398

Concerning the Problem of the Decomposition Mechanism of Ammonium Perchlorate, by A. V. Rayevskiy, G. B. Mancis, 6 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CLI, No 4, 1963, pp 886-889. 9695237
FTD-IT-64-768

Scientific
Chemistry (Contd)

Radiation Fusion of Xenon Fluorides, by G. K. Lavrovskaya, V. E. Skurat, et al, 5 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CLIV, 1964, pp 1160-1162.
AEC-ORNL-Tr-173

Catalytic Oxidation of Ammonia on Platinum by Secondary Ion Emission, by Ya. M. Fogel¹, B. T. Nadyko, et al, 5 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CLV, No 1, 1964, pp 171-174. 9224135
AEC-ORNL-Tr-282

On the Problem of the Influence of the Structure of Porous Bodies on the Size of the Specific Surface Area Being Determined by the Method of Permeability of Gases, by I. S. Izrailevich.
RUSSIAN, per, Dok Ak Nauk, Vol CLV, 1964, pp 640-643.
*AEC

Protective Action of Acridine Orange at the UV-Irradiation of Bacterial DNA of Bacteriophage 1φ-7, by G. B. Zavil'gel'shii, B. N. Il'yashenko, et al.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CLV, No 4, 1964, pp 937-939.

*AEC

Kinetics of Chemical Reactions in Plasma Jets, by L. S. Polak, Yu. L. Khait, 5 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CLVI, No 4, 1964, pp 920-923. 9224136
AEC-ORNL-Tr-266

Physical Properties of Titanium Carbide in the Region of Homogeneity, by S. N. L'vov, V. F. Nemchenko, et al, 12 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CLVII, No 2, 1964, pp 408-411. 9225789
AEC-Tr-6507

Pharmacological Research in High-Molecular Anticoagulants, by N. V. Petryayevskaya, A. V. Vaidman, 8 pp.
RUSSIAN, per, Farmakol i Toksikol, Vol XXVII, No 3, 1964, pp 331-334.
JPRS 26645

Data on the Toxicology of Beryllium Oxide, by V. V. Myel'nikov, A. B. Ivanov, et al, 9 pp.
RUSSIAN, per, Gig i San, Vol XXVII, 1962, pp 30-36.
JPRS 27031

The Colorimetric Determination of Beryllium in Water, by Yu. N. Dunayeva, 6 pp.
RUSSIAN, per, Gig i San, Vol XXVIII, No 9, 1963, pp 58-61.
JPRS 27031

The Effect of Beryllium on Tissue Respiration, by Lyu Yu-tan, 7 pp.
RUSSIAN, per, Gig Trudi Professional Zabol, Vol VI, No 9, 1962, pp 41-44.
JPRS 27031

New Kinds of Containers Made of Worn Tire Covering for Packing of Chemicals, by A. B. Derevicher, I. P. Pishchulin, 5 pp.
RUSSIAN, per, Khim Prom SSSR, No 8, 1963, pp 626-628. 9695109
FSTC 361-T64-18

Biological and Medical Problems Related to the Development of Chemistry, by V. Kh. Vasilenko, M. A. Zhukovskiy, 10 pp.
RUSSIAN, per, Klin Medit, Vol XLII, No 6, 1964, pp 3-8.
JPRS 26845

Scientific Chemistry (Contd)

Metallurgy and Fertilizer, by A. Grodnenskij, 5 pp.
RUSSIAN, per, Na Strojakh Russii, No 6, 1964,
pp 18, 19.
JPRS 26665

Prolongation of the Life of Polymers, by M. B. Neyman,
12 pp.
RUSSIAN, per, Priroda, No 7, 1964, pp 32-38.
JPRS 26843

Enzymatic Classification of Poisons, by A. A. Pokrovskiy,
33 pp.
RUSSIAN, per, Uspekhi Biol Khim, No 4, 1962, pp 61-80.
JPRS 26966

Some New Data on the Chemistry and Biochemistry of
Beryllium, by J. Shubert, 17 pp.
RUSSIAN, per, Uspekhi Khim, No 4, 1961, pp 550-560.
JPRS 27031

Current Concepts of Mechanisms of the Protective
Effect of Chemical Compounds Against Radiation,
by V. A. Baraboy, 40 pp.
RUSSIAN, per, Uspekhi Sovremennoy Biol, Vol LVIII,
No 1 (4) Jul, Aug 1964, pp 52-73.
JPRS 26842

The Effects of Beryllium and Other Bivalent Cations
on Some Intermediate Reactions of Glycolysis,
by Yu Yuy-tan, 6 pp.
RUSSIAN, per, Voprosy Medit Khim, Vol VIII, 1962,
pp 392-395.
JPRS 27031

Use of N-Benzoylphenylhydroxylamine for the
Amperometric Titration of Ti, Zr, Ga, and Sc,
by Z. A. Gallay, I. P. Alimarin, et al.
RUSSIAN, per, Zhur Neorgan Khim, Vol XVIII, No 12,
1963, pp 1442-1446.
*AEC

MgCl₂-LiCl System, by E. A. Ukshe, N. G. Bukan,
RUSSIAN, per, Zhur Neorgan Khim, Vol IX, 1964,
pp 1766, 1767.
*AEC

Equilibrium in the System NH₄ F-BaP₂-H₂ at 0°,
by A. V. Novoselova, M. Yu. Averkova.
RUSSIAN, per, Zhur Obshch Khim, 1939, pp 1063-1066.
*AEC

Hot Pressing of Pure-Oxide Ceram'cs,
by D. N. Poluboyarinov, B. I. Shal'nov, 20 pp.
RUSSIAN, per, Zhur Vses Khim Obshch (meni
D. I. Mendeleyeva), Vol VIII, 1963, pp 148-154.
9225770

AEC-AWRE-Tr-45

Aromatic Polyfluoro Compounds, by Wang Chih-ch'in,
34 pp.
CHINESE, per, Hua-hsueh T'ung-pao, No 6, 1964,
pp 22-31.
JPRS 26583

Paper Electrochromatographic Separation of
Molybdenum and Rhodium, by Yin Po-hai,
Ch'eng Te-jun, 8 pp.
CHINESE, per, Hua-hsueh T'ung-pao, No 6,
1964, pp 55, 56.
JPRS 26583

The Determination of Organic Structures by Means of
Chromatography - Rm Function as a Base for
Structural Analysis Using Chromatographic Methods,
by Zelimir Prochazka.
CZECH, per, Chemicke Listy, Vol LVIII, No 8, 1964,
pp 911-945.
*Redstone Arsenal

Scientific Chemistry (Contd)

Physical-Chemical Properties of Lead Sulphide in
Connection With Stoichiometric Deviations, by J. Bloem,
19 pp.
DUTCH, per, Chemisch Weekblad, Vol LI, 1955,
pp 387-391. 9225800
AEC-SC-T-64-1628

The Ratio Ce³⁺/Ce⁴⁺ in the Melting of Different Glasses
and Its Influence on Their Properties,
by V. Gottard, G. Paoletti, et al, 18 pp.
FRENCH, rpt, Advances in Glass Technology, 1962.
9225302
AEC-ORNL-Tr-280

The Modes of Fracture Propagation in Glass Under
Varying Strain, by P. Aclioque, C. Guilleminot, 15 pp.
FRENCH, rpt, Advances in Glass Technology, No 2,
1963, pp 95-106. 9225310
AEC-SC-T-64-919

Comparison of U-Pu-Mo, U-Pu-Nb, U-Pu-Tl and
U-Pu-Zr Alloys, by R. Boucher, Pierre Barthélémy.
FRENCH, rpt, Comparaison des Alliages U-Pu-Mo,
U-Pu-Nb, U-Pu-Tl, U-Pu-Zr, 1964.
*ARC

Contribution to the Study of the Reaction of
Hydrogen With Liquid Sodium, by Gerard Naud,
Jacques Sanner, et al, 5 pp.
FRENCH, per, Comptes Rendus, Vol CCLVII, 1963,
pp 1276-1279.
AEC-NP-Tr-1157

Relations Between the Thermal Stability and the
Chemical Structure of Organic Substances,
by H. Djavanmark-Haghi, 39 pp.
FRENCH, per, Revue de l'Institut Français du
Pétrole, Vol XVIII, May 1963, pp 679-696. 9225779
AEC-SC-T-64-1626

Study of the Final Purification of Plutonium With the
Purpose of Subsequent Fabrication of Fuel Elements
of Enriched Plutonium, by R. Billau, I. La Fontaine,
et al, 26 pp.
GERMAN, rpt, Symposium on Aqueous Repro-
cessing Chemistry of Irradiated Fuels, Brussels,
1963, pp 263-278.
AEC-ORNL-Tr-207

Evaluation of the Homogeneity of Mixtures With
Arbitrary Distribution Patterns of Particle Weights
for the Individual Mixture Components, by K. Stange,
32 pp.
GERMAN, per, Abhandl Braunschweig Wissen Gesel,
Vol V, 1953, pp 164-186.
AEC-NP-Tr-1146

Reduction Potential of the Trivalent Earths,
by W. Noddack, A. Brükl.
GERMAN, per, Angewandte Chemie, Vol L, 1937,
pp 362-365.
*AEC

Documentation of Chemical Research Data, by
W. Vaupel, Wilhelm Braun, 27 pp.
GERMAN, per, Angewandte Chemie, No 23, 1961,
pp 745-751.
Patent Office

Deuterium and Tritium Separation Factors From
Electrolytic Evolution of Hydrogen, by H. V. Butdar,
W. Vielstich, et al, 25 pp.
GERMAN, per, Berichte der Bunsengesellschaft
für Physik Chemie, Vol LXVII, 1963, pp 630-637.
AEC-NP-Tr-1155

Scientific
Chemistry (Contd)

Prevention of Contamination in the Preparation and Analysis of Highly Pure Inorganic Substances, by Franz A. Pohl, 5 pp. GERMAN, per, Chemie-Ingenieur Technik, Vol XXX, 1958, pp 347-348. Natl Bu Stand

Representation of Particle Distributions and Calculation of the Specific Surface, by H. Rumpf, K. F. Ebert, 43 pp. GERMAN, per, Chemie Ingenieur Technik, Vol XXXVI, No 5, 1964, pp 523-537. 9225799 AEC-ORNL-Tr-272

New Method for Obtaining Fresh Water From Sea Water by Freezing, by T. Messing. GERMAN, per, Dechema Monographien, Vol XLVII, 1962, 793-803. *AEC

Radiation Chemistry of Hydrocarbons. IX. Benzene, by T. Gaemann, 20 pp. GERMAN, per, Helvetica Chimica Acta, Vol XLIV, 1963, pp 2873-2883. AERE-Harwell-Tr-1006

Radiation Chemistry of Hydrocarbons. X. L.E.T. Effects in Toluene, by J. Ilaigne, W. G. Burns, et al, 18 pp. GERMAN, per, Helvetica Chimica Acta, Vol XLVII, 1964, pp 247-259. AERE-Harwell-Tr-1007

Beckmann - Rearrangement and Fragmentation. Part I - Mechanism as Well as Proof of the Intermediate Stages, by C. A. Grob, et al. GERMAN, per, Helvetica Chimica Acta, Vol XLVII, No 4, 1964, pp 1003-1015. *Redstone Arsenal

Thin-Layer Chromatography. VI. Trace Analysis of Sugar Mixtures on Kieselguhr-G Layers, by E. Stahl, U. Kaltenbach, 8 pp. GERMAN, per, Journal of Chromatography, Vol V, 1961, pp 351-355. 9225778 AEC-NP-Tr-1176

Oscillographic Behavior and Determination of Ruthenium and Osmium, by Premyzl Beran, Milos Burian, et al, 22 pp. GERMAN, per, Journal of Electroanalytical Chemistry, Vol IV, 1962, pp 105-115. 9225775 AEC-UCRL-Tr-1117(L)

Comparative Inquiries Into the Dielectric and Mechanical Behavior of Amorphous Polymers in the Main Relaxation Region, by Siegfried Kaestner, Eckard Schlosser, et al, 16 pp. GERMAN, per, Kolloid-Zeitschrift, Vol CXII, 1963, pp 22-28. AEC-SC-T-64-912

Simplified Methods for Evaluating Three-Dimensional Photoelastic Experiments, by A. Kuske. GERMAN, per, VDI Zeitschrift, Vol LXXXVI, No 35, 36, 1942, pp 541-544. *Redstone Arsenal

The pH-Dependence of the Fluorescence of Naphthaline Derivatives, by Th. Forster. GERMAN, per, Z fuer Elektrochemie, Vol LIV, No 7, 1950, pp 531-535. *AEC

Scientific
Chemistry (Contd)

Application of the J. Leonhardt Method for the Orientation of Laue Diagrams at Unknown Crystal Position in the Study of Phosphorus-Nickel-Iron Inclusions in Kamacite, by W. Borchert, J. Ehlers. GERMAN, per, Z fuer Kristallographie, Kristall-geometrie, Kristallphysik, Kristallchemie, Vol LXXXIX, 1936, pp 553-559. *AEC

Achievements of the Department of Chemical Sciences, by Tibor Erdel-Gruz, 34 pp. HUNGARIAN, per, A Magyar Tudomanyos Akademia Kemial Tudomanyok Osztalyanak Koziemnyei, No 2, 25 Aug 1964, pp 109-132. JPRS 26971

First Decade of the Academy's Central Chemical Research Institute, by Geza Schay, 36 pp. HUNGARIAN, per, A Magyar Tudomanyos Akademia Kemial Tudomanyok Osztalyanak Koziemnyei, No 2, 25 Aug 1964, pp 153-182. JPRS 26971

IR Study of Crystalline K[Cu(CN)₂], by V. Lorenzelli, F. Gesmundo, 7 pp. ITALIAN, per, Atti Accademia Nazionale dei Lincei, Rend Classe Sci Fis Mat e Nat, Vol XXXIV, 1963, pp 521-529. 9225793 AEC-LA-Tr-64-26

Dynamic Properties of Elastomers, by G. Crespi, A. Arcozzi. ITALIAN, per, Materie Plastiche Elastomeri, Vol XXIX, 1963, pp 1375-1380. *AEC

Crystal Structure and Physical Properties of CdSe, by Masaharu Aoki, Shoji Tanaka, 16 pp. JAPANESE, per, Butsuri, Vol XXIV, 1955, pp 113-117. 9225290 AEC-SC-T-64-916

Viscoelastic Properties of High Polymers. V. Effects of Vulcanization and Filler Loading on Dynamic Properties of Synthetic Rubber Near the Transition Temperature, by Shigeho Nohara, 1 pp. JAPANESE, per, Chemistry of High Polymers, Vol XII, 1955, pp 47-54. 9225326 AEC-SC-T-64-1615

Thermal Conductivities of Polyvinyl Chloride and Vinyl Chloride-Vinyl-Acetate Copolymer, by Makoto Hattori, Osamu Kamitake, 12 pp. JAPANESE, per, Kobunshi Kagaku, Vol XV, 1958, pp 215-217. 9225322 AEC-SC-T-64-1614

Effects of Crosslink Density and Swelling Upon the Property of Epoxy Resins, by K. Shibayama, M. Kodama. JAPANESE, per, Kobunshi Kagaku, Vol XX, No 222, 1963, pp 587-595. *AEC

Second-Order Transition Points of Polyvinyl Alcohol and Their Dependence on Polymerization Degree, by Heiachiro Ito, 11 pp. JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXII, 1959, pp 1453-1455. 9225323 AEC-SC-T-64-1611

Investigation of the Decomposition Potential of the System K₂ZrF₆-NaCl-KCl, by I. N. Sheiko, V. G. Feshchenko. UKRAINIAN, per, Ukrain Khim Zhur, Vol XXV, No 2, 1959, pp 166-172. *AEC

Scientific
Earth Sciences & Astronomy

Selected Portions of Aviation Meteorology,
by I. G. Pchelko, 41 pp.
RUSSIAN, bk, Aviatsionnaya Meteorologiya, Leningrad,
1963, pp 26-33; 264-300; 334-343.
ACSI I-5640
ID 1521299964

Hydrography of the Northern, Circumpolar, and
Polar Urals, by A. O. Kommerikh.
RUSSIAN, bk, Gidrografia Severnogo Prinolovarnogo
Polyarnogo Urala, Moscow, 1961, pp 3-138.
ACIC

Effects of Gravity on Body Functions and Problems of
Space Flight: Paper Presented at the Fifteenth Interna-
tional Astronautical Congress in Warsaw on
7-12 September 1964, by P. K. Isaakov, Ye. M. Yukanov,
et al, 5 pp.
RUSSIAN, rpt, Gravitatsionnye Vozdeystviya v
Formirovaniyu Funktsiy Organizma i Problemy
Kosmicheskikh Poletov, Warsaw, 7-12 Sep 1964.
9225818
NASA TT F-275

Description of Observations of Lunar Volcanoes in the
18th and at the Beginning of the 19th Centuries,
by T. N. Kladov.
RUSSIAN, rpt, Izopriko-Astronomicheskiye Issledo-
vaniya, Vol VI, 16 pp.
NASA TT F-310

The Processing of Meteor Photographs, by
A. N. Simonenko.
RUSSIAN, bk, Obrabotka Fotografii Meteorov,
Moscow, 1963, 40 pp.
ACIC
TC-807

Across the Alai Mountain Range, by N. Leonov,
V. Ratsek.
RUSSIAN, bk, Po Alayu, Tashkent, 1962, 135 pp.
ACIC
TC-754

Problems of the Movement of Large Meteoric Bodies
in the Atmosphere, by V. A. Bronshten, 129 pp.
RUSSIAN, bk, Problemy Dvizheniya v Atmosfere
Kruchykh Meteorinikh Tel, Moscow, 1963. 9225816
NASA TT F-247

Tectonics of the Central Part of the Northern Slope
of the Crimean Mountains, by T. S. Lebedev.
RUSSIAN, bk, Tektonika Tsentral'noy Chasti Severnogo
Sklona Krymskikh Gor, Kiev, 1963, pp 46-87.
ACIC
TC-831

The Land of a Promising Future, by B. Gorizontov,
A. Zubkov.
RUSSIAN, bk, V Krayu Bol'shogo Budushchego, Moscow,
1961, 186 pp.
ACIC
TC-753

Errors of Interpolation and Representation in
Detailed Gravimetric Surveys, The Accuracy of
Maps and the Rational Distribution of Stations,
by N. P. Grushinsky.
RUSSIAN, per, Astron Zhur, Ak Nauk SSSR, Vol XXXIV,
No 2, 1957, pp 267-275.
ACIC TC-717

Potential of the Terrestrial Attraction, by
I. D. Zhongolovich.
RUSSIAN, per, Bullet Inst Teoret Astron, Vol VI,
No 8(81), 1957.
ACIC
TC-720

Scientific
Earth Sciences & Astronomy (Contd)

The Constant of Lunar Parallax, by F. Kh. Perlin.
RUSSIAN, per, Bullet Inst Teoret Astron, Ak Nauk
SSSR, Vol VI, No 8 (81), 1957, pp 566-576.
ACIC
TC-722

A Correlation Between the Structural Relief and
Gravity Anomalies in the Case of Several Density
Discontinuities, by B. A. Andreyev.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXIV, No 2,
1959, pp 311-313.
ACIC
TC-715

Investigation of the World of the Ocean,
by V. N. Stepanov, 11 pp.
RUSSIAN, per, Geofiz Byull, No 4, 1963, pp 29-33.
JPRS 26999

About Conformity of values of the Isostatic and
Bouguer Anomalies, by P. Ya. Galushko.
RUSSIAN, per, Geol Zhur, Vol XIX, No 1, 1957,
pp 57-67.
ACIC
TC-685

On the Problem of Photometric Uniformity of the
Moon's Surface, by N. P. Barabashov, V. A. Yezerskaya,
18 pp.
RUSSIAN, per, Iz Ak Nauk SSSR, Komissiya po
Etsiklu Planet, No 1, 1959, pp 67-79. 9695223
DDC RSIC-304

Corpuscular Solar Radiation on the Descending Curve
of the Solar Activity Cycle, by A. S. Dvoryashin;
L. S. Levitskiy, 25 pp.
RUSSIAN, per, Iz Krymskoy Astrofiz Obser, Vol XXVII,
1962, pp 167-177. 9225733
NASA TT F-225

Proton Flares From 1957 to 1961 and the Geometry of
Interplanetary Magnetic Field I, by A. S. Dvoryashin,
15 pp.
RUSSIAN, per, Iz Krymskoy Astrofiz Obser, Vol XXVIII,
1962, pp 293-304. 9225734
NASA TT F-226

Maritime Meteorological Observations, 76 pp.
RUSSIAN, per, Morskaya Meteorologicheskaya Issledovaniya,
1963, pp 41-105.
ACIC I-5207
ID 5831002664

On the Relation Between Local Gravity Anomalies
and the Tectonics of Oil and Gas Bearing Region.
RUSSIAN, per, Neft i Gas, No 8, 1959.
ACIC
TC-689

Variation of Gravimeter Readings Under the Effect
of Vertical Oscillations of Its Base, b P. I. Lukavchenko.
RUSSIAN, per, Prikl Geofizika, No 36, 1963.
ACIC
TC-835

Influence of Vertical Accelerations on Gravimeter
Readings, by V. O. Bargamyan.
RUSSIAN, per, Prikl Geofizika, No 36, 1963.
ACIC
TC-834

Evaluation of Accuracy of Gravimetric Maps, by
M. V. Abdulov.
RUSSIAN, per, Prikl Geofizika, No 36, 1963.
ACIC
TC-833

Scientific
Earth Sciences & Astronomy (Contd)

Problem of Geological Interpretation of the Regional Gravitational Field of the Transcaucasian Lowland.
RUSSIAN, per, Trudy Geofiz Inst Ak Nauk SSSR, Vol XIV, 1955, pp 219-228.

ACIC

TC-697

Attempt at Interpretation of the Regional Gravity Map of the Georgian SSR, by M. A. Ayzenberg.
RUSSIAN, per, Trudy Geofiz Inst Ak Nauk SSSR, Vol XIV, 1955, pp 229-236.

ACIC

TC-695

Determination of the Polarization of the Lunar Aureole, by Yu. N. Lipskiy, 20 pp.
RUSSIAN, per, Trudy Gosudarstvennogo Astron Inst Soobshcheniya, No 80, 1951, pp 3-17, 9695201
DDC RSIC-303

Tectonic Dislocations of the Foundation in the Trans-Urals Region According to Geophysical Data.
RUSSIAN, per, Trudy Instituta Geofiziki, No 2, 1962, pp 211-218.

ACIC

TC-809

On the Calculation of Non-Adiabatic Processes in Numerical Short-Range Pressure Forecasting, by S. A. Mashkovich, 12 pp.

RUSSIAN, per, Trudy Tsentral Inst Prognozov, No 126, 1963, pp 38-40.
JPRS 26639

Gravity in Paratsek, Sviyazhsk and Raifa in the Tatar Republic From Determinations of 1930, by G. Agafonov, S. Nekrasova.
RUSSIAN, per, Ucheniye Zapiski KGU, Vol XC, No 1, pp 80-96.

ACIC

TC-698

A Comparison of the Law of Light Reflection as Related to the Moon and to Some Rock Varieties, by N. S. Orlova, 8 pp.
RUSSIAN, per, Yest Leningrad Univ. Ser. Mat. Mekh i Astron. No 1, 1967, pp 152-157, 9695199
DDC RSIC-301

Extension of the Chapman-Enskog Method to Gas Mixtures With Internal Degrees of Freedom and Chemical Reactions, by S. V. Vallander, I. A. Yegorova, et al.
RUSSIAN, per, Yest Leningrad Universit. Seriya Mat. Mekh i Astron. Vol XIX, No 7, 1964, pp 155-161.
NASA TT F-311

Basic Regularities in the Distribution of the Gravitational Field Elements of Tartar Republic and Freuds in Prospecting for Deep-Lying Structures.
RUSSIAN, per, Vorozsy Geologii Vostochnoy Okrainy Russkoy Platformy i Yuzhnogo Urala, No 7, 1960, pp 67-71.

ACIC

TC-713

Comparison of Pre-Paleozoic Deposits of the Western Slope of the Southern Urals and the Ural-Tau Ridge, by A. I. Olli, V. A. Romanov.
RUSSIAN, per, Vorozsy Geologii Vostochnoy Okrainy Russkoy Platformy i Yuzhnogo Urala, No 7, 1960, pp 83-92.

ACIC

TC-712

Scientific
Earth Sciences & Astronomy (Contd)

Scientific Results of the Missions of the Geological and Mining Studies of the Congo Basin and Related Works, Geodesy and Geophysics, Gravimetry, by L. Jones.

FRENCH, per, Rapport Scientifique des Missions du Syndicat Pour l'Etude Geologique et Miniere de la Cuverte Congolaise et Travaux Connexes, Geodesie et Geophysique, Gravimetry, 1960, 46 pp.

ACIC

TC-781

Magnetic Fields in a Center of Solar Activity Before and During an Eruption, by R. Michard, Z. Mouradian. FRRNC, per, Annales d'Astrophysique, Vol XXIV, 1961, pp 54-63.

ACIC

TC-813

Climatic Conditions in Paper Tests.
FRENCH, per, Bulletin du Comite Francais de Cartographie, No 18, 1963, pp 230-237.

ACIC

TC-806

Test of Applying "Multimask" Procedure to Cartography.
FRENCH, per, Bulletin du Comite Francais de Cartographie, No 18, 1963, pp 241-244.

ACIC

TC-805

Adoption of an International Formula of Normal Gravity.
FRENCH, per, Bulletin Geodesique, Vol XXV-XXIX, 1930-1931, pp 40-49.

ACIC

TC-723

Determination of the Vertical Curve, by D. Schoepe.
GERMAN, bk, Die Bestimmung der Lotkrumming, No 22, 1963, 88 pp.

ACIC

TC-830

Handbook of Astrophysics, by G. Eberhard, A. Kohlschuetter.
GERMAN, bk, Handbuch der Astrophysik, Vol I, 1933, pp 502-560.

ACIC

TC-785

Research Concerning the Mutual Perturbations of Jupiter & Saturn, by P. A. Hansen.
GERMAN, bk, Untersuchungen ueber die gegenseitigen Stoerungen des Jupiters und Saturns, Berlin, 1831, 326 pp.

ACIC

TC-817

The History and Importance of Internation Surveying, by Voelker.
GERMAN, per, Deutsche Geodaetische Kommission, Ser C, No 63, 1963, pp 61-76.

ACIC

TC-816

The Mathematical of Airy's Isostasy, With an Expansion of the Square of Sea-Level Elevations in Spherical Harmonics, by Karl Jung.
GERMAN, per, Geodansa Beitrage zur Geophysik, Vol LXII-LXIII, 1952-1954, pp 39-56.

ACIC

TC-724

Scientific
Earth Sciences & Astronomy (Contd)

One Integral Equation of Geoid.
GERMAN, per, Geodatische Beiträge zur Geophysik, Vol LXX, No 6, 1961, pp 373-379.
ACIC
TC-701
Aneroid Sea-Gravimeter, by H. Haalck.
GERMAN, per, Geodatische Beiträge zur Geophysik, Vol LXXII, No 2, 1963, pp 89-102.
ACIC
TC-761
The Ionic Equilibrium of the Lower Atmosphere, by J. Bricard.
GERMAN, per, Journal of Geophysical Research, Vol LIV, 1949, pp 39-52.
AEC-Tr-6425
On the Application of Terrain Models and of the Map Relief, by H. Muchle.
GERMAN, per, Kartographische Nachrichten, No 4, 1963, pp 111-113.
ACIC
TC-725
Sea Gravimeter.
GERMAN, per, Zeit für Instrumentenkunde, No 8, 1958, 11 pp.
ACIC
TC-766
Commentaries and Reports. (Some Instrumental Innovations in the Field of Electronic Distance Measurement.
GERMAN, per, Zeit für Vermessungswesen, No 8, 1963, pp 354-355.
ACIC
TC-839
Path Curvature of Electromagnetic Waves and Their Effect on the Measurements of Distances, by W. Hoepcke.
GERMAN, per, Zeit für Vermessungswesen, No 6, 1964, pp 183-200.
ACIC
TC-839
Determination of Geoid, and Its Application as Reduction Surface.
GERMAN, per, Zeit für Vermessungswesen, No 6, 1964, pp 200-202.
ACIC
TC-839
Present Status of the Italian Gravity Network, by G. Boaga.
ITALIAN, per, Pubblicazioni della Commissione Geodetica Italiana, Ser 3, No 4, 1947, pp 5-18.
ACIC
TC-815
On the Determination of the Geoidal Constants by Means of Gravity Measurements Alone, by Carlo Somigliana.
ITALIAN, per, Rendiconti dell'Accademia Nazionale dei Lincei, Ser 6a, Vol V, 1927, pp 319-323.
ACIC
TC-737
An Outline of Spherical and Practical Astronomy for Topographers and Land Surveyors, by Bronislaw Dzikiewicz, 165 pp.
POLISH, bk, Zarys Astronomii Sferycznej i Praktycznej dla Topografów i Geodetów, Warsaw, 1955, 199 pp.
OTS 61-11308
PL-480

Scientific
Earth Sciences & Astronomy (Contd)

Determination of Geodetic Geographic Coordinates and Ellipsoidal Heights From the Observations of Artificial Satellites.
POLISH, per, Geodezja i Kartografia, Vol XII, No 3, 4, 1963.
ACIC
TC-798
Gravity Determinations in Spain and the Earth Figure Most Closely Approximating the Geoid Derived From Said Data, by Guillermo Sans Huolin, Luis Lozano Calvo.
SPANISH, rpt, Memorias del Instituto Geográfico y Cadastral, Vol XIX, 1948, 27 pp.
ACIC
TC-844
The Static Quartz Gravimeter and the Gravity Measurements, by G. Norgaard.
SWEDISH, bk, Ein Statischer Quarzgravimeter und Schwerkraftmessungen, No 10, 1939, pp 1-23.
ACIC
TC-782

Electronics

Magnetic Recording in Automation, by V. N. Shadrin, (NY-9517)
RUSSIAN, bk, Magnitnaya Zapis' v Avtomatike, Moscow, 1962, pp 2-120.
*JPRS
Reliability of the Manufacture of Electronic Computing Machines, by P. P. Mesyatshev, 71 pp.
RUSSIAN, bk, Nadezhnost' Proizvodstva Elektronno-Vychislitel'nykh Mashin, Moscow, 1963, pp 3-16; 28-32; 97-102; 173-188; 196-213.
JPRS 26687
Tooth-Comb-Type Radiosonde RZ-049, Description and Operating Instructions, 22 pp.
RUSSIAN, rpt, Radiosond Grebenchaty RZ-049, Osnovaniye-Instruktsiya po Eksploatatsii, pp 2-32, Rpt No 18200022-64/C/GP3.
ACSI I-5616
ID 2204041164
Calculation for Radio Relay Line Layouts, by A. I. Kalinin, (DC-10990)
RUSSIAN, bk, Raschet Trass Radiotsvyaznykh Linii, Moscow, 1964, pp 1-247.
*JPRS
The Theory of Transmitting Discrete Information, by L. M. Pink. (SF-3474)
RUSSIAN, bk, Teoriya Peredachi Diskretnykh Soobshcheniy, Moscow, 1963, pp 1-576.
*JPRS
Questionnaire Language and Abstract Synthesis of Minimal Sequential Machines, by A. A. Tai¹, 32 pp.
RUSSIAN, per, Avtomatika i Telemekhanika, Vol XXV, No 6, 1964, pp 946-962. 9225377
NASA TT F-260
Ultrasonic Emitters With Quartz Piezoclements of Y-Section, by A. P. Sviridov, Ye. A. Korcpin, 6 pp.
RUSSIAN, per, Iz Vyssh Ucheb Zaved, Pribor, No 1, 1959, pp 34-37. 9695450
F TD-TT-63-1226

Scientific
Electronics (Contd)

Selection of a Color Television System, by I. P. Zakharov, I. N. Denisenko, et al, 8 pp.
RUSSIAN, por, Tekh Kino i Televiz, No 9, 1964, pp 9-13.
JPRS 26844

The Use of Semiconductor Diodes to Electrically Tune UHF Cavity Resonators, by N. M. Andreyeva, I. V. Ivanov, 5 pp.
RUSSIAN, por, Vest Moskov Univ, No 6, 1964, pp 3-6.
ACSI I-5439
ID 220403684

Analog Computers - Present State and Future Outlook From the Technical and Economic Points of View, by L. Prouza.
CZECH, por, Automatizace, No 7, 1964, pp 173-175.
ACSI I-5737-A
ID 220404646

Characteristics of Computers, by Valentin Chamrad, Jan Sedlak, et al.
CZECH, por, Automatizace, No 7, 1964, p 188.
ACSI I-5747-B
ID 220404646

The ZUSE Z 23 Automatic Electronic Transistor Computer, by B. Niklova, 8 pp.
CZECH, por, Jenna Mechanika a Optika, Vol VII, No 11, 1962, pp 339-342.
ACSI I-5739
ID 2204047764

New Automatic Perforated Tape Transmitters, by Jaroslav Vana, 12 pp.
CZECH, por, Slovensk Technika, Vol XI, No 10, 1963, pp 383-387.
ACSI I-5421
ID 2204033164

The Tenth Anniversary of the Telecommunications Institute, by Vaclav Ouzky, 10 pp.
CZECH, por, Slaboproudny Obzor, Vol XXIV, No 10, 1963, pp 561-563.
ACSI I-5651
ID 2204043044

A Quantum Generator Using Neodymium Glass, by Karel Patek, 8 pp.
CZECH, por, Slaboproudny Obzor, Vol XXV, No 7, 1964, pp 390-393.
ACSI I-3800
ID 2204049564

Latest Developments in Radio Engineering Equipment, by Anton Chrenka, 6 pp.
CZECH, por, Svet Vedy, No 4, 1964, pp 226-230.
ACSI I-5746
ID 2204046364

Tests of New Fast Photomultipliers, by J. Coatens, 14 pp.
FRENCH, por, Bulletin d'Informations Scientifiques et Techniques, No 64, 1962, pp 29-36. 9223769
AEC-UCRL-Tr-1014(L)

Optical-Frequency Communications, 5 pp.
FRENCH, por, Electronique et Automatisme, No 5, 1964, pp 181-183.
ACSI I-5412
ID 2204034264

Use of Tunnel Diodes in Electronic Switching Circuits, by A. Judeinstein, 24 pp.
FRENCH, por, L'Onde Electrique, No 10, 1963.
ACSI I-5380
ID 2204032964

Scientific
Electronics (Contd)

A New Expression for Braking Force of Electromagnetic Brake With Nonferromagnetic Disk, by Alfons Irim, 13 pp.
FRENCH, por, Revue d'Electrotechnique et d'Energetique, Vol VIIa, 1962, pp 237-247. 9223794
AEC-UCRL-Tr-1039(L)

On the Choice of a Uniform Temperature for the Calibration of Measuring Instruments, by C. Cochet.
FRENCH, por, Revue Generale de L'Electricite, Vol IV, 16 Nov 1918, pp 740-742.
*AEC

Temperatur Standardization of Industrial Gages, by C. E. Guillaume.
FRENCH, por, Revue Generale de L'Electricite, Vol XXIII, 14 Jan 1928, pp 73-76.
*AEC

Concerning Standardization Temperature of Industrial Gages, by M. A. Perard.
FRENCH, por, Revue Generale de L'Electricite, Vol XXIII, 28 Jan 1928, pp 169, 170.
*AEC

Improvements in the Electrical Equipment of Automobiles, 14 pp.
FRENCH, patent No 714,791.
Patent Office

The Orthogonal Multiplexing as a Generalization of Time and Frequency Multiplexing, by H. Harmuth.
GERMAN, por, Archiv der Elektrischen Übertragung, Vol XVIII, No 2, 1964, pp 43-50.
*AEC

A New Setup for the Measurement of the Power During Ionization Processes, by A. Veverka, J. Chladek.
GERMAN, por, Bulletin of the Swiss Electrical Association, Vol XLIX, No 2, 1938, pp 45-50.
*AEC

The Use of Electronic Computers in the Development of VTOL Aircraft, by Friedrich Klose, 5 pp.
GERMAN, por, Electrotechnische Zeitschrift, Vol XVI, No 12, 1964, pp 316-318.
ACSI I-5658
ID 2204043764

Digital Components for Contactless Controls, by O. P. Herrnkind, 12 pp.
GERMAN, por, Elektro-Anzeiger, No 8, 22 Apr 1964, pp 147-153.
ACSI I-5763
ID 2204048164

The Varactor, by K. Kern, 7 pp.
GERMAN, por, Fernmelde-Praxis, No 2, 1964, pp 11, 112.
ACSI I-5429
ID 2204035964

Some Problems in Data Teletransmission, by M. Maywaldt, 8 pp.
GERMAN, por, Der Fernmelke-Praktiker, Vol IV, No 3, 1964, pp 49-53.
ACSI I-5431
ID 2204045764

The Use of Imperfect and Defective Transistors, by H. Jakubaschik, 6 pp.
GERMAN, por, Funkamateur, No 8, 1963, pp 269-271.
ACSI I-5409
ID 2204033964

Scientific Electronics (Contd)

The ESR 2 Tube and Its Applications, by W. Otto, 8 pp. GERMAN, Per, Internationale Elektronische Rundschau, No 3, 1964, pp 145-150. ACSI I-5425 ID 2204035564

On the Possibility of Address Change on the Miniature Computer Cellarion SER 2, by P. Hummitzsch, H. J. Schulz, 10 pp. GERMAN, per, Messen-Steuern-Regeln, No 5, 1964, pp 192-197. ACSI I-5621 ID 2204041564

The Nature of Information, Its Processing, Transmission, and Recording, by H. Fruhauf, 11 pp. GERMAN, per, Nachrichtentechnik, Vol XIII, No 10, 1963, pp 362-369. ACSI I-5428 ID 2204035864

Electrical Communications Technology -- From the Theory of Systems Viewpoint, by G. Fritzache, 9 pp. GERMAN, per, Nachrichtentechnik, Vol XIII, No 10, 1963, pp 376-379. ACSI I-5430 ID 2204036064

Observations of Multi-Channel Propagation on the Osaka-Frankfurt a. Main Short-Wave Transmission Stretch, by B. Beckmann, K. Vogt, 7 pp. GERMAN, per, Nachrichtentechnische Zeitschrift, No 10, 1958, pp 1-5. ACSI I-5753 ID 2204047164

Correlation Measurements for Frequency Diversity in the Short-Wave Range, by J. Grosskopf, G. Heimelmann, et al, 7 pp. GERMAN, per, Nachrichtentechnische Zeitschrift, No 8, 1961, pp 1-5. ACSI I-5753 ID 2204047164

A Contribution to the Protection of Remotely-Supplied Coaxial Cable Systems Against the Effect of High Currents, by H. Seil, E. Widl, 27 pp. GERMAN, per, Nachrichtentechnische Z., Vol XVI, 1963, pp 569-577. AEC-NP-Tr-1159

Oxide Semiconductor Elements With New Characteristic Data and Nomenclatures, Reactance Stages, 9 pp. GERMAN, per, Radio und Fernsehen, Vol XIII, No 10, 1964. ACSI I-5619 ID 2204041264

A Simplified Method of Obtaining Highest-System Reliability, by Masafumi Sasaki, 19 pp. JAPANESE, per, Denki Tsushin Gakka Zasshi, Vol XLV, No 2, 1962, pp 144-150. 9225318 AEC-SC-T-64-1616

Use of Semiconductors in Infrared Detectors, by Zvonimir Ogorelec, Branko Celuska, 11 pp. SERBO-CROATIAN, per, Vojnotehnicki Glasnik, No 12, 1963, pp 892-900. ACSI I-4898 ID 2204022464

Televerkets Three Coin Automatic System, by Harry Claesson, Sten Ofors, 16 pp. SWEDISH, per, Teleteknik, No 1, 1963, pp 199-207. ACSI I-4757-D ID 2204017464

Soviet Bloc Brochures on Electronics, 27 pp. UKRAINIAN, rpt. ACSI I-3145 ID 2240856

Scientific Engineering

Gost 2246-60 Steel Welding Wire, 11 pp. RUSSIAN, rpt, Provokola Stal'naya Svarochnaya, Moscow, 1961, pp 1-8. 9695039 FTD-TT-64-378

On an Air Cushion, by L. A. Gilberg, 24 pp. RUSSIAN, bk, Tekhnika, Series IV, No 13, 1963, pp 1-38. ACSI I-4825 ID 2204019764

There is Such a Machine, by Ye. Temchin, 5 pp. RUSSIAN, np, Ekon Gazeta, Feb 15, 1964, p 40. 9695351 FTD-TT-64-1170

High Pressure Steam Boiler Shutdowns, by N. Stroganov, 7 pp. RUSSIAN, np, Ekon Gazeta, No 34, 22 Aug 1964, p 36. JPRS 26950

Study of the Action of Explosions in the Heart of a Massif During Multifire Blasting, by V. K. Rubtsov, A. E. Azarkovich, 5 pp. RUSSIAN, per, Gornyy Zhur, No 2, 1963, pp 41, 42. 9225421 AEC-UCRL-Tr-1100(L)

New Developments in Investment Casting Technology, by I. A. Pankov, V. A. Skazhennik, et al, 6 pp. RUSSIAN, per, Mashinos, No 3, May, Jun 1964, pp 36-38. JPRS 26697

Use of Glass Cement Discussed, by I. Tsygankov, A. Posadskiy, 5 pp. RUSSIAN, np, Stroitel' Gazeta, 14 Jun 1964, p 2. JPRS 26599

Flexible Containers for Underwater Storage of Liquid Fuels, by A. L. Koshevov, 5 pp. RUSSIAN, per, Sudostroyenie, Vol XXVI, No 3, 1960, pp 85, 86. 9695102 FSTC 381-T64-19

The Motorship "Bobruyskies", by I. A. Zaytsev, B. A. Goloburdin, 7 pp. RUSSIAN, per, Sudostroyenie, No 6, 1964, pp 1-4. JPRS 26698

Designing of Freely Floating Elastic Containers, by B. I. Druz', V. B. Magule, 7 pp. RUSSIAN, per, Sudostroyenie, No 7, 1964, pp 10-12. 9695103 FSTC 381-T64-20

Transactions of Power Engineering, 235 pp. RUSSIAN, per, Trudy Instituta Energetiki, Vol III, 1957, pp 1-209. 9695231 FTD-TT-62-1516

The Aswan Dam, by Jamal Badawi, 8 pp. ARABIC, np, Akhbar Al-Yawn, 15 Aug 1964, p 5. JPRS 26632

Apparatus for Measuring Liquids of Varying Density Such That a Measured-Out Portion Possesses a Fixed Amount of Solid Materials, by Frantisek Turek, Hynek Stolc, 9 pp. AUSTRIAN, patent No 28,586. Patent Office

Buttressed Grooved Piston, 5 pp. BELGIAN, patent No 568,017. Patent Office

Construction of Skalka Hydraulic Project on the Vah River, by Miroslav Smrcek, 10 pp. CZECH, per, Ingenyrske Stavby, No 6, 1959, pp 224-228. ACSI I-5336 ID 2204031664

Scientific
Engineering (Contd)

Engineering Psychology -- A New Scientific Discipline, by Michal Strizene, 5 pp.
CZECH, per, Svet Vedy, No 7, 1964.
ACSI I-5748
ID 2204046564
Electric Locomotive at Brno International Fair, by Frantisek Jansa, 6 pp.
CZECH, per, Technicka Prace, Vol XIII, No 9, 1961, pp 704-710.
ACSI I-0406
ID 2180107
The Noise-Time Compromise of Response in Period Meters With Continuous Current. A New Type of Circuit, by G. Friedling, 39 pp.
FRENCH, rpt, 1961. 9225765
AEC-Tr-6506
Pilot Scale Electron Bombardment Furnace for Continuous Casting, Application to the Trial Preparation of 20 kg of Uranium Monocarbide, by J. Trouve, R. Gonard, et al.
FRENCH, rpt, 1964.
*AEC
Twenty-Five Years With an Electric Furnace, by E. Borel, M. Tchuay, 12 pp.
FRENCH, rpt, Advances in Glass Technology, 1962. 9225317
AEC-ORNL-Tr-281
Progress in Polychrome Photomechanics.
FRENCH, per, Bulletin du Comite Francais de Cartographie, No 18, 1963, pp 238-241.
ACIC
TC-804
Discovery, Diagnosis and Treatment of Patentable Techniques at the CEA. Survey of Some Aspects of Industrial Patent Rights, by C. Gilguy, 11 pp.
FRENCH, per, Bulletin d'Informations Scientifiques et Techniques, Vol LXXI, 1963, pp 87-91. 9225810
AEC-NP-Tr-1175
The Exploitation of Nuclear Inventions, by A. Mongredien, 11 pp.
FRENCH, per, Bulletin d'Informations Scientifiques et Techniques, Vol LXXI, 1963, pp 97-103. 9225796
AEC-NP-Tr-1178
Windowless Photomultipliers, by M. Brunet, C. Jehanno, et al, 12 pp.
FRENCH, per, L'Onde Electrique, Vol XLII, No 426, Sep 1962, pp 747-753. 9225316
AEC-ORNL-Tr-188
Influence of Temperature on the Calibration of Gages, by Paul Grand.
FRENCH, per, Revue Generale de Mechanique, Vol XXXIX, 1955, pp 39-45; 247-254; 395-400; 445-450; Vol XL, 1956, pp 81-87; 159-164.
*AEC
Level Indicator, by Charles Terres Weymann, 14 pp.
FRENCH, patent No 690,008.
Patent Office
Signalling and Automatic Traffic Control Arrangement for Railroads, by Jack R. Shepard, 35 pp.
FRENCH, patent No 1,277,755.
Patent Office
Dielectric Heating in the Rubber Industry, by H. Bauermeister.
GERMAN, rpt, Die Dielektrische Erwarming in der Gummiproduktion, Hamburg, 7-9 Jun 1950.
*AEC

Scientific
Engineering (Contd)

On the Stress Increase in Notch Specimens, by Ernst Weinel.
GERMAN, per, Fifth International Congress for Applied Mechanics, Vol LI, 1938, pp 31-33.
*Redstone Arsenal
Determination by Means of Interferences That Have the Same Thickness, of Lines Where the Total of the Principal Stress is the Same, by A. Dose, R. Landwehr.
GERMAN, per, Ingenieur-Archiv, Vol XXI, No 2, 1953, pp 73-86.
*Redstone Arsenal
Tests on the Stability of Thin, Unstiffened Cylinders Under Shearing and Longitudinal Forces, by W. Bollerstadet, H. Wagner.
GERMAN, per, Luftfahrt-Forschung, Vol XIII, No 10, 1936, pp 309-312.
*Redstone Arsenal
Universal Assembly of Prefabricated Machine Parts for Pneumatic Guidance Controls, by H. Toepper, D. Schrepel, 16 pp.
GERMAN, per, Maschinen-Steuern Regeln, Vol VII, No 2, 1964, pp 63-72. 9695410
FTD-TT-64-723
The Computation of Terrain Reduction With the Aid of Nomograms, by Heinz Watermann.
GERMAN, per, Nachrichten aus dem Karten- und Vermessungswesen, No 20, 1961.
ACIC
TC-810
Stress Concentration in Cold Riveted Joints Under Load, by M. Koenig.
GERMAN, per, Schweizer Archiv, Vol XIII, 1937, pp 41-46.
*Redstone Arsenal
Possibilities for the Use of Terrestrial Photogrammetry in Highway Construction, by H. Glaser, 13 pp.
GERMAN, per, Die Strasse, Vol IV, No 1, 1964, pp 57-64. (Call No TE3 S86, vol IV, no 1, Eng Tr)
Army Map Service
The Ventilation and Lighting of Road Tunnels, by Gustav Singer, 12 pp.
German, per, Strasse und Verkehr, Vol L, No 7, Jun 1964, pp 378-384. (Call No TE3 S87, vol 50, No 7, Eng Tr)
Army Map Service
Investigations of the Influence of Temperature Variations on the Readings of a Comparator With Large Mechanical Deflection, by Rudolf Noch, Hans Huhn.
GERMAN, per, Z fuer Instrumentenkunde, Vol LXVII, 1959, pp 285-288.
*AEC
Cross Joint, by Hugo Lesser, 5 pp.
GERMAN, patent No 533,395.
Patent Office
Sprinkling Device, by Karl Muller, 6 pp.
GERMAN, patent No 578,351.
Patent Office
Production of Electron Pairs in Thick Converters for Primary Electron Energies Between 30 and 200 MeV, by E. Ferlenghi, M. A. Spano, et al.
ITALIAN, rpt, 26 Apr 1963.
*AEC
Thread-Cutting Device for Circular Machines for the Manufacture of Stockings or the Like, by Giorgio Billi, 11 pp.
ITALIAN, patent No 593,152.
Patent Office

Scientific
Engineering (Contd)

Passive Infrared Detection Device, 9 pp.
JAPANESE, per, Pachibu, No 6, 1964, pp 1-18.
ACSI I-5777
ID 2204048864
Results of Studying the Flow Through Grids of
Turbine Blades of Greater Degree of Reactivity at
Velocities Exceeding the Speed of Sound, by
J. Smigelski, A. Zabicki, 17 pp.
POLISH, per, Prace Instytutu Maszyn Przepływowych
Polska Ak Nauk, No 13, 1963, pp 19-30. 9695390
FTD-TT-64-389
Problem of Industrial Design in the Manufacture of
Vehicles, by James Pawłowski, 17 pp.
POLISH, per, Technika Motoryzacyjna, No 7, 1964,
pp 216-223. 9694968
FSTC 381-T64-1
Experiments Carried Out With the Tellurometer in
the Rumanian People's Republic From 1961 to 1963,
by M. Botez.
RUMANIAN, per, Revista de Geodezie si Organizarea
Teritoriului, Vol VIII, No 1, 1964, pp 27-33. (Call No
QB75 R43, vol 8, no 1, Eng Tr)
Army Map Service
A New Stereo comparator With Three Plates.
SPANISH, bk, Un Nouveau Stereo-comparateur a
Trois Plaques, Lisbon, 7-19 Sept, 1964.
ACIC
TC-845

Fuels & Propulsion

Improvements in Articulations for Aircraft, Rotor
and Propeller Blades, 11 pp.
FRENCH, patent No 934,336.
Patent Office
Fabrication of Swaged UO₂ Fuel Elements,
by F. Hofmann, H. Kroll, et al, 19 pp.
GERMAN, rpt, 1963.
AEC-NP-Tr-1156

Materials & Metallurgy

Study of Beryllium and Chromium Whiskers,
by V. M. Amonenko, et al.
RUSSIAN, bk, Issledovaniya po Vysokoprochnym
Spivav i Nitovidnym Kristallam, 1962, pp 34-36.
*AEC
Ceramic Fluxes for Automatic Welding of
Alloyed Steels, by D. M. Kushnerov, 13 pp.
RUSSIAN, bk, Svarka Spetsial Metallov i Splavov, Kiev,
1963, pp 89-98.
JPRS 26638

Scientific
Materials & Metallurgy (Contd)

Investigation of Automatic Welding of Nickel
Heat-Resisting Alloys Under Ceramic Flux,
by D. M. Kushnerov, I. V. Lyakhovaya, 14 pp.
RUSSIAN, bk, Svarka Spetsial Metallov i Splavov, Kiev,
1963, pp 111-120.
JPRS 26638
Welding With the Use of Magnetic Ceramic
Fluxes, by D. M. Kushnerov, V. G. Svetsovskiy,
12 pp.
RUSSIAN, bk, Svarka Spetsial Metallov i Splavov, Kiev,
1963, pp 121-128.
JPRS 26638
Research on the Composition of a Ceramic Flux
for Automatic Welding of Double-Layered St. 3 /
1Kh18N9T Steel, by M. P. Grebel'nik, 10 pp.
RUSSIAN, bk, Svarka Spetsial Metallov i Splavov, Kiev,
1963, pp 129-136.
JPRS 26638
The Evolution of Heat From Highly Radioactive Solids
as Related to the Problems of Storage and Utilization,
by P. V. Zimakov, B. S. Kolychev, et al, 8 pp.
RUSSIAN, rpt, Symposium on the Treatment of Storage
of High Level Radioactive Wastes, Vienna, 1962,
pp 543-552.
AEC-ORNL-Tr-88
Liquid Metals, Symposium of Articles,
by V. M. Borishanskogo.
RUSSIAN, bk, Zhidkie Metalli, Sbornik Statei,
1963, 326 pp.
*AEC
Vaporization of Metal During Melting With an Electron
Beam, by V. I. Lecomskiy, A. I. Tikhonovskiy, 6 pp.
RUSSIAN, per, Avtomat Svarka, No 7, 1964, pp 50-53.
JPRS 26891
Chromatographic Separation of Molybdenum and
Rhenium, by D. I. Riabchikov, A. I. Lazarev, 8 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol XCI, No 4,
1953, pp 777-779.
Patent Office
On the Theory of the Atomization of Single Crystals,
by Y. V. Martynenko, 11 pp.
RUSSIAN, per, Fizika Tverdogo Tela, Vol VI, No 7,
1964, pp 2003-2009. 9695056
FTD-TT-64-949
Pyroceramics--a New Branch of Industry,
by I. Kitaygorodskiy, 5 pp.
RUSSIAN, np, Izvestiya, 22 Jul 1964, p 3.
JPRS 26599
Thermophysical Characteristics and Thermal
Effects of Reaction of Vulcanization of Hard Rubber
Compositions From Styrene Butadiene Rubber,
by N. A. Zanemonets, V. O. Fogel.
RUSSIAN, per, Kauchuk i Rezina, Vol XVIII, No 2,
1959, pp 21-24.
*AEC
New Impact Testing Machines for High-Speed
Mechanical Testing of Materials, by V. G. Kononenko,
et al.
RUSSIAN, per, Kuznechno-Shtampovochnoe Proiz,
No 5, 1963, pp 27-31.
*AEC
The Physics of Superconducting Alloys,
by A. A. Abrikosov, 12 pp.
RUSSIAN, per, Priroda, No 5, 1964, pp 26-33.
JPRS 26802
The Present State and Future Development of
Petroleum Container Production, by V. A. Zhemarin,
S. S. Kozlov, 5 pp.
RUSSIAN, per, Transport i Khraneniye Nafti, No 8,
1963, pp 24-27.
ACSI I-5625-B
ID 2204041564

Scientific
Materials & Metallurgy (Contd)

Use of Elastic Casings for the Transportation and Storage of Petroleum and Petroleum Products, by V. L. Stezhenskiy, 7 pp.
RUSSIAN, per, Transport i Khraneniye Nefti, No 8, 1963, pp 26-32.
ACSI I-5625-C
ID 2204041564

Creep Analysis of Orthotropic Fiberglass -- Reinforced Plastics, by M. A. Koltunov, V. N. Bozukov, 12 pp.
RUSSIAN, per, Vest Moskov Univ. Seriya I. Matematika i Mekh., Vol XVIII, 1963, pp 64-70. 9225422
AEC-UCRL-Tr-1073(L)

Methods for the Analysis of Calcium Carbide and Acetylene, by I. I. Strizhevskiy.
RUSSIAN, per, Zavod Lab., Vol XXII, No 11, 1956, pp 1297-1302.
*AEC

Preparation and Properties of Carbonaceous Products Prepared by the Cracking of Natural Gas, by P. Blum, L. Bochiroi, et al.
FRENCH, rpt, 1964.
*AEC

Fabrication of Uranium. Influence of the Fabrication on the Microstructure and the Mechanical Characteristics of Uranium and of Weakly Alloyed Uranium.
FRENCH, rpt, Mise en Forme de l'Uranium. Influence de la Mise en Forme sur la Microstructure et les Caracteristiques Mecaniques de l'Uranium Faiblement Allie, 28 pp.
*AEC

The Elimination of Vacancies in High-Purity Aluminum, by M. Wintenberger.
FRENCH, per, Acta Metallurgica, Vol VII, Aug 1959, pp 549-555.
*AEC

The Massive State Resistivity of Aluminum Samples of Different Purity and Free Path of Electrons at Liquid Helium and Hydrogen Temperatures, by Frederic Montariol, Robert Reich, 5 pp.
FRENCH, per, Comptes Rendus, Vol CCLIV, 1962, pp 3357-3359.
AEC-AI-Tr-30

Petroleum and Its Derivatives in the Service of Agriculture, by P. Castel.
FRENCH, per, Revue de l'Institut Francais du Petrole, Vol XXXIX, 1964, pp 638-660.
*AEC

The Contribution of Electrolytic Polishing to the Physics and Chemistry of Metals, by P. A. Jacquet, 34 pp.
FRENCH, per, Revue de Metallurgie, Vol XLVIII, 1951, pp 1-16.
AEC-SC-T-64-911

Photoelastic Determination of Elastic and Plastic Deformations and of Crystal Fragmentations in Metals, by Z. Zandman, 16 pp.
FRENCH, per, Revue de Metallurgie, Vol LIII, No 8, 1956, pp 638-644. 9695197
DDC RSIC-306

The Thermodynamic Activity of Carbon in the Iron-Vanadium-Carbon and Iron-Chromium-Carbon Systems, by H. Flender, H. Wever, 26 pp.
GERMAN, per, Archiv fuer Eisenhuettenwesen, Vol XXXIV, 1963, pp 727-732.
AEC-NP-Tr-1154

Scientific
Materials & Metallurgy (Contd)

The 100-Ton Locomotive With Motorized Dumpcar -- a New Transport Medium in Open-Cast Mining, by H. Espig, 11 pp.
GERMAN, per, Deutsche Eisenbahntechnik, Vol XII, No 8, 1964, pp 351-356.
JPRS 26832

The Mechanical Properties of Brittle Substances, by A. Smekal, 129 pp.
GERMAN, per, Ergebnisse der Exakten Naturwissenschaften, Vol XV, 1936, pp 106-188. 9225784-V
AEC-NP-Tr-1184

Foaming of PVC Without Pressure by Using Azodicarbonamide, by Henry A. Hackert.
GERMAN, per, Kunststoffe, Vol LII, 1962, pp 625-628.

*AEC

On the Preparation and Characteristics of Monomer, Polymer and Cyclic Methylsilyldiamines, by F. A. Henglein, Klaus Lienhard.
GERMAN, per, Makromolekulare Chemie, Vol XXXII, 1959, pp 218-225.
*Redstone Arsenal

The Maybach Strain Detecting Method and Its Application to Metals, by Otto Dietrich.
GERMAN, per, Metallwirtschaft, Vol XIX, No 17, 1940, pp 337-342.

*Redstone Arsenal

Entropy of Formation and Other Properties of Vacancies in Metals, by G. Schottky, A. Seeger, et al, 18 pp.
GERMAN, per, Physica Status Solidi, Vol IV, 1964, pp 439-451. 9225771
AEC-AI-Tr-59

Problems of Radiation Effect on Metals, by E. Schmid, K. Lintner.
GERMAN, per, Radex-Rundschau, No 4, 1963, pp 519-534.
*AEC

One-dimensional Disordered Crystal Lattices, by H. Jagodzinski, F. Laves, 12 pp.
GERMAN, per, Schweizerische Mineralogische und Petrographische Mitteilungen, Vol XXVIII, No 1, 1948, pp 456-467. 9224141
AEC-AI-Tr-54

Effect of Testing Apparatus on Strain Rate in Tensile Test. Characteristics of Tensile Testing Machines and Their Effect on the Rate of Strain at the Lower Yield Point, by Alfred Krisch, Reinhard Schweltzer.
GERMAN, per, Stahl und Eisen, Vol LXXXIII, 1963, pp 282-298.
*AEC

Systematic Research to Test the Anticorrosion Efficiency of VPI on a Number of Common Metals, by W. Paul, 17 pp.
GERMAN, per, Werkstoffe und Korrosion, Vol VII, No 4, 1956, pp 189-198.
ACSI I-5476
ID 2204038864

New Experiments With Steam-Phase Inhibitors, by L. Cavallaro, Giorgio Mantovani, 6 pp.
GERMAN, per, Werkstoffe und Korrosion, Vol VII, No 4, 1956.
ACSI I-5477
ID 2204038964

Scientific
Materials & Metallurgy (Contd)

The Kinetics of Separation Processes in Super-saturated Al-Zn Mixed Crystals, by V. Gerold, W. Schweizer, GERMAN, per, Z fuer Metallkunde, Vol LII, No 1, 1961, pp 76-85.
*AEC

On the Relationship Between Microstructure and Superconductivity Characteristics of Cold-Rolled and Heat-Treated Strips of Superconductors of Niobium and 25 wt % Zr, by Michael S. Walker, Roland Stickler, et al, 20 pp. GERMAN, per, Z fuer Metallkunde, Vol LIV, No 6, 1963, pp 331-338. 9225294
AEC-AL-Tr-56

Plastic Deformation of Silver Single Crystals at High Temperatures, by S. Buhler, K. Lucke. GERMAN, per, Z fuer Metallkunde, Vol LV, No 6, 1964, pp 331-342.
*AEC

A Simple Process for the Production of Transparent Membranes of Aluminum Oxide With Large Surface Areas and Thicknesses Between 50 and 300 μ , by Karl Strohmaier. GERMAN, per, Z fuer Naturforschung, Vol VIa, 1951, pp 508, 509.
*AEC

Electrical Conductivity of Alkaline Earth Titanates, by Krzysztof Pigoz, 35 pp. POLISH, per, Roczniki Chemii, Vol XXVIII, 1954, pp 611-628. 9225797
AEC-SC-T-64-1605

Fine Ceramic Materials Obtained From Crystallized Glass (Porcelain From Glass), by N. Lungu, D. Popescu-Has, 12 pp. RUMANIAN, per, Industrial Usoara, Vol V, 1958, pp 63-65.

Patent Office

Achievements in Geological Research in the Field of Hydrocarbons, by D. Paraschiv, 11 pp. RUMANIAN, per, Petrol si Gaze, Vol XV, No 8, 1964, pp 381-386. JPRS 26977

Mathematics & Data Processing

Applicational Generative Model and Transformational Calculus in the Russian Language, by S. K. Shaumyan, P. A. Soboleva, 109 pp. RUSSIAN, bk, Applikativnaya Porozhidayushchaya Model i Ischisleniye Transformatsiy v Russkom Yazyke, Moscow, 1963, pp 3-125. JPRS 26640

Computer Programming in Meteorology, by M. V. Zavarina, M. I. Yudin, 69 pp. RUSSIAN, bk, Schetnye Mashiny v Meteorologii, Leningrad, 1963. JPRS 26693

A Method of Information Readout From a Computer, by V. K. Yeliseyev, 10 pp. RUSSIAN, per, Avtomat i Priborostroyenie, No 3, 1963, pp 29-32. ACSI I-5420
ID 2204035064

Scientific
Mathematics & Data Processing (Contd)

Some Questions About the Noise Stability of the Functions of Algebra of Logic, 8 pp. RUSSIAN, per, Dok Ak Nauk Arm SSR, Vol XXXVI, No 3, 1963, pp 147-151. 9695258
FTD-TT64-675

Mathematical Statistics Method for Calculating Earth Displacement Operations in the Planning of Canals and Irrigation Districts, by I. V. Busalayev, 14 pp. RUSSIAN, per, Problemy Gidroenergetiki i Vodnogo Khoz, No 1, 1963, pp 158-167. 9225773
AEC-UCRL-Tr-113 (L)

Developments in Investigations of Automation in Programming, 11 pp. RUSSIAN, per, Vest Ak Nauk SSSR, No 5, 1964, pp 19-26. JPRS 26998

Mathematical Simulation in Sociological Research, by P. P. Maslov, 18 pp. RUSSIAN, per, Voprosy Filosofii, No 5, 1964, pp 65-75. JPRS 26705

Straight Lines and Conics Determined by the Method of Least Squares, by J. Dommanget, FRENCH, per, Annales de l'Observatoire Royal de Belgique, Ser 3, Vol VI, No 3, 1953, pp 67-94. ACIC
TC-789

Digital Computers and Sequence Automation, by G. Puisieux, 7 pp. FRENCH, per, La Technique Moderne, Vol LVI, No 4, 1964, pp 24-26. ACSI I-5462
ID 2204035164

The Use of Program-Controlled Automatic Computers in the Weather Service, by H. Panzram, 6 pp. GERMAN, per, Internationale Elektronische Rundschau, No 1, 1964, pp 15-18.

ACSI I-5424
ID 2204035464
519th MI BN

A Practical Lateral - Extensometer for Measuring the Sum of Stresses, by Rudolph Hiltzschler. GERMAN, per, Kungliga Tekniska Hogskolans Handlingsar, No 42, 1950, pp 2-22.
Redstone Arsenal

Probability of Phenomena Which Arise Independently Within a Given Time Period Having Simultaneous Duration, by M. Oleszkiewicz, 10 pp. POLISH, per, Roczniki Polskiego Towarzystwa Matematycznego Seria I: Prace Matematyczne, Vol IV, 1960, pp 1-7. 9225311
AEC-SC-T-64-1603

Nuclear Science & Technology

The Cyclotron Instability of Anisotropic Plasmas, by V. I. Pustunovich, 90 pp. RUSSIAN, rpt, Moscow. 9225781
AEC-ORNL-Tr-219

Some Principles in the Change of the Basic Mechanical Properties of Construction Materials Under Neutron Irradiation, by N. F. Pravdyuk, A. B. Amayev, 25 pp. RUSSIAN, rpt, Moscow, 1962, 38 pp. 9225768
AEC-Tr-6456

Scientific
Nuclear Science & Technology (Contd)

Practical Course in Radiation Chemistry, by L. T. Bugayenko, E. P. Kalyazin, et al. RUSSIAN, bk, 1962, 162 pp.
*AEC

Studies of Photoproduction by Means of Dispersion Relations, by L. D. Sosiov'ev, G. N. Tentyukova, 27 pp. RUSSIAN, rpt, Joint Institute for Nuclear Research, Jan 1964. AEC-UCRL-Tr-1041(L)

The Electromagnetic Properties of Baryons in the Model of Unitary Symmetry, by B. Kapustaik, E. Obryk, 5 pp. RUSSIAN, rpt, Joint Institute for Nuclear Research, 1964, pp 1-7. 9225791 AEC-ANL-Tr-65

Isotropic Discharge Chamber for the Detection of Tracks of Relativistic Charged Particles, by M. M. Butslov, V. I. Komarov, et al, 14 pp. RUSSIAN, rpt, Joint Institute for Nuclear Research, Dubna, 1964, pp 1-17. 9225790 AEC-ANL-Tr-64

Motion of Pores in Solids Caused by Thermal Migration of Atoms Along Their Surface, by B. Ya. Mikhlin, 10 pp. RUSSIAN, rpt, O Dvizhenii por v Tverdogole. Vyzvaniom Termicheskoi Migratsii Atomov po ikh Poveryknosti, 1963. AEC-Harwell-Tr-1001

Radioactive Fallout in the Vicinity of Simeiz in 1960-1961, by L. I. Balyayev, L. I. Gedenov, et al, 5 pp. RUSSIAN, rpt, Peaceful Uses of Atomic Energy, Moscow, 1963, 7 pp. 9223787 AEC-Tr-6455

Radiochemical Method of Mass Monitoring of the Strontium-90 Content in Fresh-Water Reservoirs, by G. A. Sereda, Ts. I. Bohovnikova, 9 pp. RUSSIAN, rpt, Peaceful Uses of Atomic Energy, Moscow, 1963, 12 pp. 9223805 AEC-Tr-6457

Protection Against Fallout, by R. V. Petrov, et al. RUSSIAN, bk, Zashchita ot Radioaktivnykh Osadkov, Moscow, 1963, 188 pp.
*AEC

Operation of the First Nuclear Power Plant in the World, by G. N. Ushakov, L. A. Kochetkov, et al, 13 pp. RUSSIAN, per, Atom Energiya, Vol XVI, No 6, 1964, pp 484-488. 9225805 AEC-Tr-6463

I. V. Kurcharov Belyarsk Nuclear Power Plant, by P. I. Aleshchenkov, Yu. I. Mirzayev, et al, 19 pp. RUSSIAN, per, Atom Energiya, Vol XVI, 1964, pp 489-496. 9225300 AEC-Tr-6462

Proceedings of the Tashkent Conference on the Peaceful Uses of Atomic Energy, by Ya. Kh. Turakulov, 843 pp. RUSSIAN, per, Trudy Tashkent Konferent po Miremnoj ispol'zovaniyu Atom Energi, Ak Nauk Uzbek SSR, Vol III, 1961, pp 1-504. AEC-Tr-6293

Isotopic Spectral Analysis of Boron, by A. G. Zhiglin'skiy, A. S. Kochemirovskiy. RUSSIAN, per, Vest Leningrad Univ, No 16, 1963, pp 62-82.
*AEC

Scientific
Nuclear Science & Technology (Contd)

The Scattering of Slow Neutrons by Crystals and Liquids, by B.K.A. Nijboor, J.J.J. Kokkedee, 43 pp. DUTCH, per, Nederlands Tijdschrift voor Natuurkunde, Vol XXIX, 1963, pp 61-79; 93-109. AEC-Harwell-Tr-1004

An Installation for Preparing Radio-Elements by the Szilard-Chalmers Effect, by M. Douis, J. Valade, 25 pp. FRENCH, rpt, 1961. AEC-HW-Tr-69

Neutron Characteristics of Beams Issuing From BR2, by Neve de Mevergne, B. Legrand, 8 pp. FRENCH, rpt, Brussels, Oct 1962. 9225296 AEC-Tr-6499

Documentation in Nuclear Industrial Patent Rights, by M. Lenoir, 6 pp. FRENCH, per, Bulletin d'Informations Scientifiques et Techniques, Vol LXXI, 1963, pp 65-67. 9225783 AEC-NP-Tr-1174

New Method of Determination of the Thermal Utilization Factor of a Cell, by A. Amouyal, P. Benoit, et al, 30 pp. FRENCH, per, Journal of Nuclear Energy, Vol VI, 1957, pp 79-98. 922764 AEC-Tr-6505

Spectrometry of Fast Neutrons by Means of the Reaction $^6\text{Li}(N, t)^4\text{He}$, by G. Gerts. FRENCH, per, Journal of Nuclear Energy, Vol XVII, 1963, pp 121-124.
*AEC

The Emission of Delayed Neutrons in Nuclear Fission Processes, by Hans Jürgen Volker Fiedler. GERMAN, rpt, Über die Emission Verzögter Neutronen bei Kernspaltprozessen, 1963, pp 27-36.

*AEC

The Use of Radioactive Isotopes in the Mineral Oil Industry, by R. Siering, 13 pp. GERMAN, per, Atompraxis, Vol IX, 1963, pp 424-429. AEC-Harwell-Tr-1003

Papers on Plasma Physics and the Institute for Plasma Physics, 89 pp. GERMAN, per, Die Atomwirtschaft, Vol VIII, No 5, 1963, pp 290-328. 9225850 AEC-NP-Tr-1167

Collision Problems of Nuclear Vessels, by G. Woisin, 18 pp. GERMAN, per, Hansa, No 12, 1964.

Maritime Admin

Operational Reliability of Sealed Radioactive Samples Sealed Samples, Part IV, by G. Vormum, H. J. Munster, 24 pp. GERMAN, per, Kernenergie, Vol VI, No 8, 1963, pp 419-428. 9225303 AEC-ORNL-Tr-258

Explanation of the Behaviour of Radiation Sensitivity Under Fractionated Irradiation, by J. Kiefer. GERMAN, per, Die Naturwissenschaften, Vol LI, No 12, 1964, pp 289, 290.
*AEC

Mass Spectroscopy of Very Small Amounts of Substance in Nuclear Physics and in Isotope Cosmology, by H. Hintenberger. GERMAN, per, Die Naturwissenschaften, Vol LI, No 20, 1964, pp 473-480.

*AEC

Scientific
Nuclear Science & Technology (Contd)

The Possibility of Reducing the Radiation Dose Necessary in Radio-Diagnosis, by G. Gregorio. ITALIAN, per, Atti XXII Congresso Nazionale di Radiologia Medica e Medicina Nucleare, Vol IV, May 1963, pp 483-493.
*AEC
Labyrinth Planning Method for Passage of a Hot Cell. Part II. Experimental Study of Pocket Effects of Labyrinth for Protection From Gamma Rays, by Masahisa Sakuda, 18 pp.
JAPANESE, per, Journal of the Association of Architects, Vol LXXX, No 8, 1963, pp 22-26. 9225301
AEC-ORNL-Tr-217
Thermal Properties and Heating and Cooling Durability of Reactor Shielding Concrete, by J. Hosoi, K. Chujo, et al, 28 pp.
JAPANESE, per, Journal of the Atomic Energy Society of Japan, Vol I, No 5, 1959, pp 308-318. 9225300
AEC-ORNL-Tr-200
Distribution of Gamma Radiation From A 60Co Source in Water, by Kenji Ishimatsu, 12 pp.
JAPANESE, per, Nippon Genshiryoku Gakkaishi, No 4, 1962, pp 175-179. 9225315
AEC-ORNL-Tr-199
Reaction of a Complete Nuclear Fusion, by B. N. Kalinkin, I. Zh. Petkov.
POLISH, per, Acta Physica Polonica, No 25, 1964, pp 265-271.
*AEC

Physica

Radiation Acceleration of Plasma, by V. I. Veksler, I. R. Gekker, et al, 16 pp.
RUSSIAN, rpt. 9225763
AEC-UCRL-Tr-1077 (L)
A Direct Method of Measuring Polarisation of a Slow Neutron Beam, by B. G. Brozolimskiy, Yu. A. Mostovoy, et al.
RUSSIAN, rpt, 1964.
*AEC
On the Excitation of Atoms of Alkali Metals, by L. Vainshtein, V. Opykhtin, et al.
RUSSIAN, rpt, 1964.
*AEC
Decontamination of Individual Protective Materials and of Protective Coatings, by S. M. Gorodinskiy, Z. Ye. Panfilova, et al.
RUSSIAN, bk, Desaktivatsiya Sredstv Individual'noy Zashchity i Zashchitynykh Pokrytiy, Moscow, 1964, pp 1-118.
JPRS 26890
Single Pole Modulator, by M. V. Verzunov, I. V. Lobanov, et al, 79 pp.
RUSSIAN, bk, Odnopolosnaya Moljuljarsiya, Chapters V, VI, VII, VIII, 1962, pp 137-211; 254-294.
AEC I-5645
ID 2204042464
Measurement of Neutron Tissue Doses Behind Reactor Shielding, by I. B. Keirim-Markus, V. T. Koroneyev, et al, 10 pp.
RUSSIAN, rpt, Symposium on Biological Effects of Neutron Irradiation, 7-11 October 1963. 9225766
AEC-Tr-6445

Scientific
Physics (Contd)

Employment of Pellicular Sensing Elements to Study Heat Exchange in a Dissociated Gas Flow, by Yu. A. Polyakov, 14 pp.
RUSSIAN, mono, Teplooobmen i Termodinamika Gazov Vysokikh Temperatur, 1962, pp 251-260. 9695445
FTD-TT-63-1056
Problems of Magnetic Measurements, by L. D. Nesterenko, 118 pp.
RUSSIAN, bk, Voprosy Magnitnykh Izmereniy, Sbornik Trudov Instituta Elektrotekhniki, Vol XVIII, 1961, pp 1-126.
AEC I-2495
ID 2232440
The Study of the Significance of Bioelectrical Potentials in the Transfer of Substances In Plants by Means of Shunting, by V. A. Opritov, E. A. Zhuravskaya.
RUSSIAN, per, Biofizika, Vol IX, No 3, 1964, pp 3373-42.
*AEC
Changes of the Mitochondrial Ultrastructure of Different Tissues Under the Effect of Some Influences, by A. G. Gamburtseva, V. V. Glagoleva, et al, 10 pp.
RUSSIAN, per, Biofizika, Vol IX, No 4, 1964, pp 508-515. 9225801
AEC-ANL-Tr-92
Luminescence of Acridine Orange Complexes With Nucleic Acids, by O. P. Borisova, L. A. Tumerman.
RUSSIAN, per, Biofizika, Vol IX, No 3, 1964, pp 537-544.
*AEC
The Application of a Permeable Porous Ceramic Type to the Experimental Study of Mass Transfer Phenomena, by B. I. Federov, Z. P. Schuman.
RUSSIAN, per, Inzhenero Fiz Zhur, Vol IV, No 2, 1961, pp 99-102.
*AEC
Criteria Equations of Convective Heat Exchange in the Two-Phase Flows of the Gas Mixture Type, by Z. R. Gorbis.
RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Tekh Nauk, No 9, 1958, pp 94-102.
AEC-NYO-2974-1
Investigation of the Thermophysical Properties of Foam Plastics by a Nonstationary Method, by A. N. Lepilkin, S. I. Nozdrin.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved, No 5, 1961, pp 122-130.
*AEC
Thermal Conductivity in the Layer Formed by Surface Irregularity, by V. M. Kapinos, O. T. Il'chenko, 17 pp.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Energet, No 9, 1958, pp 77-89. 9695004
DDC R8IC-281
Effect of Porosity on the Electro-Physical Properties of Ceramics, by I. S. Pilatov.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Fiz, No 3, 1959, pp 107-111.
*AEC
The Effect of Crystallographic Anisotropy on the Parametric Excitation of Spin Waves in Single Crystal Ferrites, by G. A. Petrakovskiy, 9 pp.
RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Fiz, No 6, 1962, pp 29-37.
AEC I-4252
ID 2204006464

Scientific
Physics (Contd)

The Expressions of the Matrix Elements of the Operator of the Electrostatic Interaction for Different Vector Coupling Schemes, by S. Budryte, J. Vizbaraitė, et al. RUSSIAN, per, Litovskiy Fizicheskiy Sbornik, Vol I, 1961, pp 283-289.

*AEC

On the Calculation of the Matrix Elements of Operators for Almost Closed Shells, by A. Jucys, J. Vizbaraitė, et al. RUSSIAN, per, Litovskiy Fizicheskiy Sbornik, Vol II, 1962, pp 123-135.

*AEC

The Application of the Methods of Coefficients of Fractional Partage to Molecular Terms Calculations, by I. Kaplan. RUSSIAN, per, Litovskiy Fizicheskiy Sbornik, Vol III, 1963, pp 227-233.

*AEC

Color Contrasts on the Lunar Surface, by N. P. Barabaschoff, 7 pp. RUSSIAN, per, Priroda, Vol XLII, No 12, 1953, pp 88-90. 9695222
DDC RSIC-271

Experimental Investigation of Soil Pressure on Subterranean Installations Subject to External Static and Dynamic Forces, by A. Melikchian, 9 pp. RUSSIAN, per, Sosobcheniye Akademii Nauk Gruzinской SSR, Armenian, Vol XXVIII, No 5, 1962, pp 533-560. 9695433

FTD-TT-63-711

An Apparatus for Obtaining Plasma and Studying Its Properties, by A. Ye. Sheyndlin, E. I. Asinovskiy, 9 pp. RUSSIAN, per, Trudy Nauchno-Issled Inst Vysokikh Temperatur, Moscow, 1963, pp 1-5. 9695232
FTD-TT-64-812

Some Nonlinear Effects in Ferroelectrics, by I. V. Lyagin, Ya. I. Geyvashovich, 10 pp. RUSSIAN, per, Uchenye Zapiski Smolenskogo Gos Ped Insta, Vol X, 1962, pp 94-102. 9695058
FTD-TT-64-433

Perturbation of the Continuous Spectrum of a Singular Elliptic Operator Under Changes of the Boundary and Boundary Conditions, by M. Sh. Birman, 41 pp. RUSSIAN, per, Vest Leningrad Universitet, No 1, 1962, pp 22-55. 9225313
AEC-ANL-Tr-59

Thermodynamics of Dielectrics, by M. I. Shakhparonov, 5 pp. RUSSIAN, per, Vest Moskov Univer, No 6, 1963, pp 11-13. 9225776
AEC-AWRE-Tr-46

Molecular Ordering in Polymers, by D. N. Bort, Yu. V. Ovchinnikov, et al, 8 pp. RUSSIAN, per, Vyazkomolekulyarnye Soedineniya, Vol IV, 1962, pp 933-939. 9225420
AEC-SC-T-64-1622

New Iron-Containing Polymers on the Basis of Ferrocene and Their Electrophysical Properties, by Ya. M. Paushkin, L. S. Polak, 10 pp. RUSSIAN, per, Vysoko Soved, Vol VI, No 3, 1964, pp 545-550. 9695256
FTD-TT-64-773

Conductivity of Thin Metallic Films, by M. I. Kaganov, M. Ya. Azbel. RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XXVII, 1954, pp 762-763.

*AEC

Scientific
Physics (Contd)

Theory of Transformation and Scattering of Electromagnetic Waves in Nonequilibrium Plasma, by I. A. Akhiezer, I. A. Danelliya, et al, 15 pp. RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XLVI, 1964, pp 300-305.

AEC-ORNL-Tr-162

Activity of Heterogeneous Catalysts From the Viewpoint of the Therapy of Active Ensembles. I. Metallic Crystals, by O. M. Poltorak. RUSSIAN, per, Zhur Fiz Khim, Vol XXIX, No 9, 1955, pp 1650-1667.

*AEC

Infra-Red Spectroscopic Study of High Molecular Organosilicon Compounds, by A. P. Krushkov, Yu. A. Mikhailenko, et al.

RUSSIAN, per, Zhur Fiz Khim, Vol XXXI, No 12, 1957, pp 2690-2696.

*AEC

Photocatalytic Synthesis of Amino-Acids, by L. A. Nikolayev, O. N. Agapova, 7 pp. RUSSIAN, per, Zhur Fiz Khim, Vol XXXVII, 1963, pp 2746-2748.

AEC-ORNL-Tr-215

Shockwave Formation and Dispersion of Explosion Products in Air, by V. V. Adushkin. RUSSIAN, per, Zhur Prik Mekh i Tekh Fiz, No 5, 1963, pp 107-114.

*AEC

Effect of Pressure on the Disruption of Stable Burning of Porous Explosives, by A. F. Belyayev, A. I. Korotkov, et al, 5 pp.

RUSSIAN, per, Zhur Prik Mekh i Tekh Fiz, No 5, 1963, pp 117-120. 9225804

AEC-LA-Tr-64-15

Disintegration of the Surface of the Metal as the Function of the Angle of the Abrasive Particle, by V. N. Kashcheyev.

RUSSIAN, per, Zhur Tekh Fiz, Vol XXV, 1955, pp 2365-2368.

*AEC

Electrolytic Initiation of Olefinic Polymerizations, by Wu Chin-yuan, Hu Chen-ye, 30 pp.

CHINESE, per, Hua-hsueh T'ung-pao, No 6, 1964, pp 9-16.

JPRS 26583

March Toward Ultra-High Vacuum, by Lin Ting, 7 pp.

CHINESE, per, K'uo-hsueh Ta-Chung, No 9, 1963, pp 14-15. 9695350

FTD-TT-64-608

Paramagnetic Resonance Electron Spectrum of Complex Polymers of the 8-Dihydroxy Quinoline Series, by Hsu Yuan-chih, Tseng Hsien-mou, 5 pp.

CHINESE, per, K'uo-hsueh T'ung-pao, No 6, 1964, pp 522-524.

JPRS 26629

Research on Electron Spin Resonance Spectra of Gamma-Irradiated Monoclinic Cyanoacetic Acid, by Kuo Te-liang, 6 pp.

CHINESE, per, K'uo-hsueh T'ung-pao, No 6, 1964, pp 524-526.

JPRS 26629

Operating Characteristics of Some Domestically-Produced Crystal Tubes, by Ts'hai Jen-ming, 7 pp.

CHINESE, per, Wu-shien-tien, No 7, 1964, pp 15, 16.

JPRS 26647

Scientific
Physics (Contd)

Plasma Devices, by Ivan Severac, 9 pp.
CROATIAN, per, Tehnika, No 4, 1964, pp 630-636.
ACSI I-5442
ID 2204037164

Effect of Periodic Pulsations and Outer Flow
Turbulence on the Flow in a Turbulent Boundary Layer,
by Rudolf Dvorak, 27 pp.
CZECH, per, Strojnický Časopis, Vol XIII, No 2, 1962,
pp 101-122. 9695444
FTD-TT-63-1145

Measurement of Resonance Absorption Integral,
by René Vidal.
FRKNCI, rpt, Jul 1964.
*AEC

Isochronism, by M. A. Jacquierod, 16 pp.
FRENCH, rpt, Actes du Congrès International de
Chronométrie, 26-29 Aug 1949, pp 79-86.
ACSI I-5801
ID 2204049064

Synchronization of Clocks and Chronometers by
Rhythmed Radio Signals, by M. M. Lévet, 15 pp.
FRENCH, rpt, Actes du Congrès International de
Chronométrie, 26-29 Aug 1949, pp 173-181.
ACSI I-3797
ID 2204049264

Experimental Verification of Some Theoretical
Considerations Concerning the Compensator Spiral,
by M. R. Straumann, 12 pp.
FRENCH, rpt, Actes du Congrès International de
Chronométrie, 26-29 Aug 1949, pp 182-186.
ACSI I-3796
ID 2204049164

Contribution to the Study of the Elastic Deformation
of Solids, by A. Messager, 60 pp.
FRENCH, rpt, Annales des Ponts et Chausées,
Mémoires, 1901, pp 129-190. 9695221
DDC RSIC-305

Experimental Determination of Internal Stresses
in Solids, by Augustin Messager, 78 pp.
FRENCH, rpt, Memorial des Sciences Physiques,
L'Academie des Sciences de Paris, No 10,
1929, pp 1-82.
DDC RSIC-299

Some Results of Irradiation of the Fuel Elements for
Rapsodie, by J. P. Mustelier, 24 pp.
FRENCH, rpt, Symposium on the Effects of Radiation on
Solids and Materials for Reactors, Venice, 7-11 May 1962,
pp 163-183. 9223289
AEC-HW-Tr-76

The Dielectric-Constant Variations Related to Phase
Change, by Serge Le Montagner.
FRENCH, per, Annales de Physique, Vol V, 1960,
pp 469-508.
*AEC

Contributions to the Study of Infrared Emissions in
Germanium, by Jacques I. Pankove, 64 pp.
FRENCH, per, Annales de Physique, Vol VI, 1961,
pp 331-374. 9225774
AEC-UCRL-Tr-1111 (L)

Fast Neutron Spectrometry Using Surface-Barrier
Junctions and Lithium, by J. P. Noel, S. Passee, et al.
FRENCH, per, Bulletin d'Information Scientifique et
Technique, No 81, 1964, pp 61-74.
*AEC

Scientific
Physics (Contd)

Analysis by Infra-Red Spectrometry of Mixtures of
Phenols and Cresols, by M. Aumeras, R. Minango,
et al.
FRENCH, per, Bulletin de la Société Chimique de
France, No 10, 1953, pp 924-927.
*AEC

A Study of the Energies of Electrons and Positrons
Emitted at the Time of Certain Nuclear Reactions,
by M. Claude Magnan, 5 pp.
FRENCH, per, Comptes Rendus, Vol CCV, 1957,
pp 1147-1149.
AEC-ORNL-Tr-235

Microscopic Observation of Beryllium in the High-
Temperature Embrittlement Zone, by Pierre Pointu,
Pierre Azou, et al, 5 pp.
FRENCH, per, Comptes Rendus, Vol CCLVI, 1963,
pp 4419-4421.
AEC-ORNL-Tr-138

Temperature of Adjustment of Industrial Gages,
by Albert Perard.
FRENCH, per, Le Génie Civil, Vol XC, 25 Jun 1927,
pp 621-624.
*AEC

Temperature Adjustment of Length Standards,
by L. Graux.
FRENCH, per, Le Génie Civil, Vol XCI, 10 Sep 1927,
pp 250-252.
*AEC

Limitation of Quantity of Radioactive Substances
Manipulated or Transported. Evaluation of Accidental
Radiation Exposures, by F. Duhamel, J. M. Lavie.
FRENCH, per, Health Physics, Vol X, 1964, pp 453-468.
*AEC

Application of Nuclear Magnetic Resonance to the
Study of Water of Constitution of Silica Gels,
by Jacques Fraissard, Ionel Solomon, et al, 17 pp.
FRENCH, per, Journal de Chimie Physique, 1963,
pp 676-683. 9225795
AEC-TR-6483

Representative Curves of the Laws of Longitudinal
and Transverse Impact on a Prismatic Bar, by
M. Flaman, 32 pp.
FRENCH, per, Journal de l'Ecole Polytechnique,
Vol LX, 1889, pp 97-128. 9695198
DDC RSIC-300

Discrimination of Particles in Organic Scintillations,
by G. Walter, A. Huck, et al, 5 pp.
FRENCH, per, Journal de Physique et la Radium,
pp 1017-1020.
AEC-ORNL-Tr-238

Emission of Infrared From Germanium,
by P. Aigrain, C. B. La Guillaume.
FRENCH, per, Journal de Physique et la Radium,
Vol XVII, Aug, Sep 1936, pp 709-711.
FSTC Tr Log No 177

Theory of Photoexcitation in Solids, by A. Meessen.
FRENCH, per, Journal de Physique et la Radium,
Vol XXII, 1961, pp 135-141.
*AEC

Theory of the Photoelectric Effect in Metals,
by A. Meessen.
FRENCH, per, Journal de Physique et la Radium,
Vol XXII, 1961, pp 308-320.
*AEC

Scientific
Physics (Contd)

Fundamental Photoelectric Effect of Semiconductors and Cs_3Sb , by A. Meessen.
FRENCH, per, Journal Physique et le Radium, Vol XXII, 1961, pp 472-480.

*AEC

Considerations of More Methods in Photoelasticity, by A. Plard.
FRENCH, per, Revue Universelle des Mines, Vol XVI, Series 9, Apr 1960, pp 177-200.

*AEC

Process and Apparatus for Mixing a Powder With a Water Current Under Pressure, by Tecalnit-Mondial, 6 pp.
FRENCH, patent No 815,247.

Patent Office

On the Formation at High Temperature of Delta-Phase Alumina in Different Systems of Alumina-Based Oxides and in the Alumina-Nitride System of Aluminum, by Anne-Marie Lejeu, Robert Collongues.
GERMAN, rpt, Preprint of Paper Presented at the Fifth International Symposium on the Reactivity of Solids, Munich, Aug 1964.

*AEC

Shock, Origin, Course and Therapy, 38 pp.
GERMAN, rpt, Der Schock Entstehung, Verlauf und Therapie, Jan 1964, pp 1-61.

ACSI-1-5444

ID 2204042364

On the Durational Process of Filling in Parachute Models of Different Construction Types and Air Permeability, by H. D. Melzig, 17 pp.
GERMAN, bk, Wissenschaftliche Gesellschaft fuer Luftfahrt, 1959, pp 292-298. 9225772

AEC-SC-T-64-1621

Physical Properties of Liquid Metals on the Region of Melting and Boiling Point, by K. H. Spiller.
GERMAN, rpt, Zur Kenntnis der Physikalischen Stoffeigenschaften von Flüssigmetallen Zwischen Schmelz und Siedepunkt, Ispra, Italy, 1964.

*AEC

The Dynamic Magnetic Properties of Ferrite, by F. Voigt, 9 pp.
GERMAN, per, Abhandlungen der Deutschen Ak der Wissenschaften zu Berlin, Klasse für Chemie, Geologie und Biologie, No 3, 1961, pp 42-45. 9693432

FTD-TT-63-6

On the Switching-Time Measurements on Rectangular Ferrites, by G. Vogler, 5 pp.
GERMAN, per, Abhandlungen der Deutschen Ak der Wissenschaften zu Berlin, Klasse für Chemie, Geologie und Biologie, No 3, 1961, pp 46-48. 9693432

FTD-TT-63-6

The Physics of Corona Discharges in Solid Dielectrics, by B. Heller, J. Chladek.
GERMAN, per, Acta Technica, Vol I, 1964, pp 1-16.

*AEC

On the Melting of Powders in a Plasma Beam, by H. Meyer.
GERMAN, per, Berichte der Deutschen Keramischen Gesellschaft, Vol XII, No 2, 1964, pp 112-118.

*AEC

The Relative Biological Efficiency of Ionizing Radiation RBW, by O. Hug.
GERMAN, per, Biophysik, Vol I, No 4, 1964, pp 210-213.

*AEC

Scientific
Physics (Contd)

The Significance of RBW for the Radiation Therapy, by H. Gartner.
GERMAN, per, Biophysik, Vol I, No 4, 1964, pp 214, 215.
*AEC

The Relative Biological Effect of 15 Mev Electrons and 200 KV X-Rays Upon the Root Point Cells of Allium Cepa, by W. Friedrich, B. Markus.
GERMAN, per, Biophysik, Vol I, No 4, 1964, pp 216, 217.

*AEC

The Effect of the Energy Spectrum of Fast Electrons Upon the Determination of the Absolute Dose by the Bragg-Gray Principle, by B. Markus.
GERMAN, per, Biophysik, Vol I, No 4, 1964, pp 218, 219.

*AEC

The Relative Biological Efficiency of 200 KV Roentgen and Co^{60} - γ -Radiation Studied on the Walker Carcinoma of a Rat, by W. A. Linden.
GERMAN, per, Biophysik, Vol I, No 4, 1962, pp 220, 221.

*AEC

Effect of X and γ -Rays of Co^{60} Upon the Growing Larynx of a Rabbit. A Contribution of the RB-Effect of the Co^{60} - γ -Radiation Upon the Cartilage, by Th. Hornykiewytsch.
GERMAN, per, Biophysik, Vol I, No 4, 1964, pp 222, 223.

*AEC

On the Perspectives of Radiation Therapy With Heavy Particles, by W. Pohl.
GERMAN, per, Biophysik, Vol I, No 4, 1964, p 224.

*AEC

Physical Principles of the Relative Biological Efficiency of Different Types of Radiation, by Deitrich Harder.
GERMAN, per, Biophysik, Vol I, No 4, 1964, pp 225-229.

*AEC

Plated Films Used for Storage Devices, by H. Billing, 18 pp.
GERMAN, per, Elektronische Rechenanlagen, Vol V, No 6, 1963, pp 237-261.

ACSI I-4454

ID 2204009864

Sonovisor 2M Ultrasonic Materials Testing, by H. Trommler, 6 pp.
GERMAN, per, Feingeräte Technik, No 4, 1964, pp 171-174.

ACSI I-5126

ID 2204025764

525th MI GP

The Mechanism of X-Ray Discoloration of Ionic Crystals, by M. Balarin.
GERMAN, per, Kernenergie, Vol VII, No 6, 7, 1964, pp 434-443.

*AEC

The Double Refraction of Rubber in the Deformed and in the Undeformed State, by M. Kroeger, 8 pp.
GERMAN, per, Kolloid Zeitschrift, Vol XLV, 1928, pp 52-56. 9695003

DDC RSIC-289

Comparison Between the Dielectric and the Mechanical Relaxation Behavior of Polyvinyl Chloride, by J. Koppelman.
GERMAN, per, Kolloid-Zeitschrift & Zeitschrift fuer Polymere, Vol CLXXXIX, No 1, 1963, pp 1-6.

*AEC

Polymers. Thermodynamics of Swelling. Part II. Swelling in the State of Internal Equilibrium, by Gunther Rehage.
GERMAN, per, Kolloid-Zeitschrift & Zeitschrift fuer Polymere, Vol CXXVI, No 2, Jun 1964, pp 97-126.

*AEC

Scientific
Physics (Contd)

On the Accuracy of Impedance Measurements With Microwaves, by F. Fischer.
GERMAN, per, Kungliga Tekniska Hogskolans Handlingar, No 33, 1950, pp 2-31.
*Redstone Arsenal
Heat Conductivity of Plastics as a Function of Structure, Temperature and Pretreatment, by K. Eiermann, 27 pp.
GERMAN, per, Kunststoffe, Vol LI, No 9, 1961, pp 512-517. 9225787
AEC-SC-T-64-1623

Design of Cold-Stretched Thick-Walled Cylinders and Tubes for Very High Pressures, by H. Wintsch.
GERMAN, per, Schweizer Archiv fuer Angewandte Wissenschaft und Technik, Vol IX, 1943, pp 81-95.
*AEC
The Climbing Speed of Gas Bubbles in Liquids of Different Viscosity and Surface Tension, by Erwin Coester.
GERMAN, per, Z fuer Angewandte Physik, Vol XIII, No 5, 1961, pp 234-239.
*Redstone Arsenal
Lattice Constant Determination With X-Ray Goniometers Taking into Account High-Temperature Techniques, by H. Ebol.
GERMAN, per, Z fuer Angewandte Physik, Vol XVI, No 6, 1964, pp 490-498.
*AEC
Electrical Transfer Measurements for the Investigation of the Heteropolarity Intermetallic Phases, by O. Kubaschewski, K. Reinartz.
GERMAN, per, Z fuer Elektrochemie, Vol LII, No 2, 1948, pp 75-86.
*AEC
Investigation on the Occurrence of Compound Molecules in Vapor of Potassium Amalgam Melts, by Alfred Roeder, Wilhelm Morawietz, 53 pp.
GERMAN, per, Z fuer Elektrochemie, Vol LX, 1956, pp 431-454. 9225320
AEC-ANL-Tr-63
Experiments in Noble Gas Diffusion in Alkali Halide Single Crystals, by S. Kalbitzer.
GERMAN, per, Z fuer Naturforschung, Vol XVIIa, 1962, pp 1071-1081.
*AEC
Study of Complex and Covalent Iron Compounds Using the ^{57}Fe Mossbauer Effect, by W. Kerler, W. Neuwirth, et al.
GERMAN, per, Z fuer Physik, Vol CLXXXIII, No 3, 1963, pp 321-346.
*AEC
Functional Averages in the Statistical Theory of Quantum Mechanical and Classical Systems of Many Particles, by Johannes Zittartz.
GERMAN, per, Z fuer Physik, Vol CLXXX, 1964, pp 219-234.
*Redstone Arsenal
On the Preparation of Debye-Scherrer Diagrams of Air-Sensitive Alloys, by E. Zinti, A. Harder, et al, 5 pp.
GERMAN, per, Z fuer Physikalische Chemie, Vol CLIVa, 1931, pp 92-96.
AEC-ANL-Tr-37
Transport Numbers at High Electrolyte Concentrations. I. Fundamentals, by R. Haase, 25 pp.
GERMAN, per, Z fuer Physikalische Chemie, Vol XXXIX, 1963, pp 27-44.
AEC-UCRL-Tr-1070(L)

Scientific
Physics (Contd)

On the Determination of Characteristic Values of a Spherical Distribution From the Distribution of Section Circles, by Gunter Bach.
GERMAN, per, Z fuer Wissenschaftliche Mikroskopie und Mikroskopische Technik, Vol LXV, No 5, 1963, pp 285-291.
*AEC
Report of the 14th Conference of the International Committee of Electrochemical Thermodynamics and Kinetics, by Sandor Lengyel, 5 pp.
HUNGARIAN, per, Magyar Tudomanyos Akademia Kemisi Tudomanyok Osztalyanak Kozlemenyei, Vol XXI, No 3, 4, pp 339-341.
JPRS 26634
Observations on the Accidental Exposure of a Family to Cobalt-60 Radiation, by R. Martinez, G. Cassab, et al.
ITALIAN, per, Revista Medica, Vol III, No 1, 1964, pp 14-68.
*AEC
Instructions on Operation of Riken Type Deep Sea Radiation Measuring Device, 9 pp.
JAPANESE, rpt.
AEC-Tr-6432
Deep-Sea Gamma Ray Measuring Device, 20 pp.
JAPANESE, rpt.
AEC-Tr-6433
On the Contact Potential Difference of Selenium Rectifier, by Masaharu Aoki, 5 pp.
JAPANESE, per, Butsuri, Vol XVIII, 1949, pp 352, 353. 9225325
AEC-SC-T-64-915
Thermal Conductivity of Low Pressure Polyethylene, by Makoto Hattori, 14 pp.
JAPANESE, per, Kobunshi Kagaku, Vol XVII, 1960, pp 432-435. 9225321
AEC-SC-T-64-1610
Study on Carbides in Iron and Steel by Electrolytic Isolation. IV. Behaviour of Cementite During Cold Working and Subcritical Annealing, by T. Sato, T. Nishizawa.
JAPANESE, per, Nippon Kinzoku Gakkaishi, Vol XX, 1956, pp 51-55.
*AEC
Photo-Elasticity of Polymers (I), by Jiro Tsuji, Kozo Kawada, 18 pp.
JAPANESE, per, Oyo Butsuri, Vol XXII, No 9, 1964, pp 387-394. 9695002
DDC RSIC-277
Dependence of the Tensile Properties of Polyethylene on Strain Rate and Temperature, by Tatsuro Kawaguchi, 10 pp.
JAPANESE, per, Zairyo Shiken Kyoto, Vol X, 1961, pp 394-397. 9225324
AEC-SC-T-64-1612
Differences in Sensitivity to Gamma Radiation in Drosophilae of the Willistoni Group, by G. Carvalho, M. P. da Cruz.
SPANISH, rpt, Rio de Janeiro.
AEC-Tr-6429
Effect of Operating Conditions of an MM-1000 Oil Diffusion Pump on the Composition of Decomposition Products of D-1A Oil, by G. T. Nikolayev, B. A. Sharevsky, 10 pp.
UKRAINIAN, per, Ukrain Fiz Zhur, Vol VI, No 5, 1961, pp 697-702. 9225788
AEC-ORNL-Tr-158
Width of Lines, Emitted by Laser Models, by V. S. Mashkevich, 5 pp.
UKRAINIAN, per, Ukrains'kiy Fiz Zhur, Vol VIII, No 8, 1963, pp 918-921. 9595352
FTD-TT-64-841

Scientific
Miscellaneous

Cybernetics--the Science of Optimum Control,
by A. I. Berg, 56 pp.
RUSSIAN, bk, Kibernetika--Nauka ob Optimal'nom
Upravlenii, Moscow, No 325, 1964, pp 1-54.
JPRS 26581

Extension of CERN Into French Territory. Storage
Ring, Second Field of Exploration, Account of the
Laboratory Tests and Report, by J. Florentin,
G. L. L'Heriteau.
FRENCH, rpt, Geneva, 25 Jan 1964.
*AEC

License Contracts, by J. Pineau, 9 pp.
FRENCH, per, Bulletin d'Informations Scientifiques
et Techniques, Vol LXXI, 1963, pp 105-108.
9225782

AEC-NP-Tr-1179
Pressure Exerted and Work Done by Growing Plants,
by W. Pfeiffer.
GERMAN, per, Mathematische-Physikalische Klasse,
Vol XX, 1893, pp 233-474.
*ABC

The Activities of the Tekhnion Institute for Research
and Development, 9 pp.
HEBREW, per, Yediot HaTekhnion, No 67, Jun 1964,
pp 16, 17.
JPRS 26986

INFORMATION RECEIVED DURING DECEMBER

ON COVER-TO-COVER TRANSLATIONS

Avtomatika i Telemekhanika, Vol XXV, No 4, 1964.	Instr Soc of Amer
Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol LVI, No 10, 1963.	CB
Doklady Akademii Nauk SSSR, Physical Chemistry Section, Vol CLIII, No 1-6, Nov, Dec 1963.	CB
Doklady Akademii Nauk SSSR, Soviet Mathematics, Vol CLVII, No 1-6, 1964.	Amer Math Soc Sov Math-Dok Vol V, No 4
Entomologicheskoye Obozreniye.	
Vol XL, No 4, Oct-Nov 1961.	AIBS
Vol XLI, No 1, Jan-Mar 1962.	Scripta Technica
Vol XLI, No 2, Apr-Jun 1962.	Scripta Technica
Vol XLI, No 3, Jul-Sep 1962.	Scripta Technica
Vol XLI, No 4, Oct-Dec 1962.	Scripta Technica
Vol XLII, No 1, Jan-Mar 1963.	Scripta Technica
Vol XLII, No 2, Apr-Jun 1963.	Scripta Technica
Vol XLII, No 3, Jul-Sep 1963.	Scripta Technica
Fizika Tverdogo Tela, Vol VI, No 3, 1964.	Amer Inst of Phys Sov Phys-Solid St Vol VI, No 3
Izmeritel'naya Tekhnika, No 3, 1964.	
Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol XXVII, No 11, 1963.	CTT
Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol XXVII, No 12, 1963; Vol XXVIII, No 1, 1964.	CTT
Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 8, 9, 1963.	CB
Kinetika i Kataliz, Vol IV, No 5, Sep, Oct 1963.	CB
Optika i Spektroskopiya, Vol XVII, No 2, Aug 1964.	Optical Soc of Amer
Pribory i Tekhnika Eksperimenta, No 2, Mar, Apr 1964.	Instr Soc of Amer
Radiobiologiya, Vol IV, No 2, 1964. 9225851-V	AEC-Tr-6405
Tsvetnye Metally, Vol IV, No 6, 1963.	Primary Sources

Vestnik Svyazi, Vol XXIV, No 7, 1964.	JPRS 26556
Vestnik Svyazi, Vol XXIV, No 10, 1964. (NY-7855)	*JPRS
Vestnik Svyazi, Vol XXIV, No 11, 1964. (NY-7855)	*JPRS
Zavodskaya Laboratoriya, Vol XXX, No 4, 1964.	Instr Soc of Amer
Zhurnal Analiticheskoi Khimii, Vol XIX, No 1, 1964.	CB
Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki, Vol XLVI, No 5, Nov 1964.	Amer Inst of Phys Sov Phys-JETP Vol XIX, No 5
Zhurnal Prikladnoi Khimii, Vol XXXVI, No 8, 9, 1963.	CB

*in Process

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SKUHRAVA, M. and SKUHRAVY, V., Bejmoroky, Vydala Ceskoslovenska Akademie zemedelskych ved ve Státnim zemedelskem nakladatelstvi: 1-272, Praha, 1960	153	247

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Central Intelligence Agency



Washington, D.C. 20501

7 September 2004

Ms. Roberta Schoen
Deputy Director for Operations
Defense Technical Information Center
7725 John J. Kingman Road
Suite 0944
Ft. Belvoir, VA 22060

Dear Ms. Schoen:

In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the "Non-NIS" referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,

A handwritten signature in black ink, appearing to read "Sergio N. Alcivar".

Sergio N. Alcivar
Chief, CIA Declassification Center,
Declassification Review and Referral
Branch

Enclosures:

1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)

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Processing of OGA-Held CIA Documents

The following CIA documents located at DTIC were reviewed
by CIA and declassification guidance has been provided.

OGA Doc ID	Job Num	Box	Fltr	Doc	Doc ID	Document Title	Pub Date	Pages	Decision	Proc Date
AD0834364	78-03109A	52	1	6	62	Consolidated Translation Survey For February 1963	2/1/1963	232	Approved For Release	3/25/2004
AD0402915	78-03109A	52	1	7	63	Consolidated Translation Survey For March 1963	3/1/1963	314	Approved For Release	3/25/2004
AD0405169	78-03109A	52	1	8	64	Consolidated Translation Survey For April 1963	4/1/1963	278	Approved For Release	3/25/2004
AD0409473	78-03109A	52	1	9	65	Consolidated Translation Survey For May 1963	5/1/1963	358	Approved For Release	3/25/2004
AD0413153	78-03109A	53	1	1	66	Consolidated Translation Survey For June 1963	6/1/1963	361	Approved For Release	3/25/2004
AD0414818	78-03109A	53	1	2	67	Consolidated Translation Survey For July 1963	7/1/1963	249	Approved For Release	3/25/2004
AD0418328	78-03109A	53	1	3	68	Consolidated Translation Survey For August 1963	8/1/1963	324	Approved For Release	3/25/2004
AD0834365	78-03109A	53	1	4	69	Consolidated Translation Survey For September 1963	9/1/1963	193	Approved For Release	3/25/2004
AD0423936	78-03109A	53	1	5	70	Consolidated Translation Survey For October 1963	10/1/1963	232	Approved For Release	3/25/2004
AD0426736	78-03109A	53	1	6	71	Consolidated Translation Survey For November 1963	11/1/1963	298	Approved For Release	3/25/2004
AD0428566	78-03109A	53	1	7	72	Consolidated Translation Survey For December 1963	12/1/1963	298	Approved For Release	3/25/2004
AD0431011	78-03109A	53	1	8	73	Consolidated Translation Survey For January 1964	1/1/1964	273	Approved For Release	3/25/2004
AD0433215	78-03109A	53	1	9	74	Consolidated Translation Survey For February 1964	2/1/1964	200	Approved For Release	3/25/2004
AD0437984	78-03109A	54	1	1	75	Consolidated Translation Survey For March 1964	3/1/1964	305	Approved For Release	3/25/2004
AD0440831	78-03109A	54	1	2	76	Consolidated Translation Survey For April 1964	4/1/1964	155	Approved For Release	3/25/2004
AD0442174	78-03109A	54	1	3	77	Consolidated Translation Survey For May 1964	5/1/1964	249	Approved For Release	3/25/2004
AD0443106	78-03109A	54	1	4	78	Consolidated Translation Survey For June 1964	6/1/1964	191	Approved For Release	3/25/2004
AD0444756	78-03109A	54	1	5	79	Consolidated Translation Survey For July 1964	7/1/1964	169	Approved For Release	3/25/2004
AD0447557	78-03109A	54	1	6	80	Consolidated Translation Survey For August 1964	8/1/1964	153	Approved For Release	3/25/2004
AD0450482	78-03109A	54	1	7	81	Consolidated Translation Survey For September 1964	9/1/1964	141	Approved For Release	3/25/2004
AD0451428	78-03109A	54	1	8	82	Consolidated Translation Survey For October 1964	10/1/1964	149	Approved For Release	3/25/2004
AD0453181	78-03109A	54	1	9	83	Consolidated Translation Survey For November 1964	11/1/1964	157	Approved For Release	3/25/2004
AD0455133	78-03109A	54	1	10	84	Consolidated Translation Survey For December 1964	12/1/1964	121	Approved For Release	3/25/2004
AD0456859	78-03109A	54	1	11	85	Consolidated Translation Survey For January 1965	1/1/1965	179	Approved For Release	3/25/2004
AD0458780	78-03109A	54	1	12	86	Consolidated Translation Survey For February 1965	2/1/1965	161	Approved For Release	3/25/2004
AD0461501	78-03109A	55	1	1	87	Consolidated Translation Survey For March 1965	3/1/1965	301	Approved For Release	3/25/2004